THE ARCHITECT & BUILDING NEWS

IN THIS ISSUE

- BRAZILIAN ARCHITECTURE
- L.C.C. PRIMARY SCHOOL

JULY 9, 1953 · VOL. 204 · NO. 2 · ONE SHILLING WEEKLY

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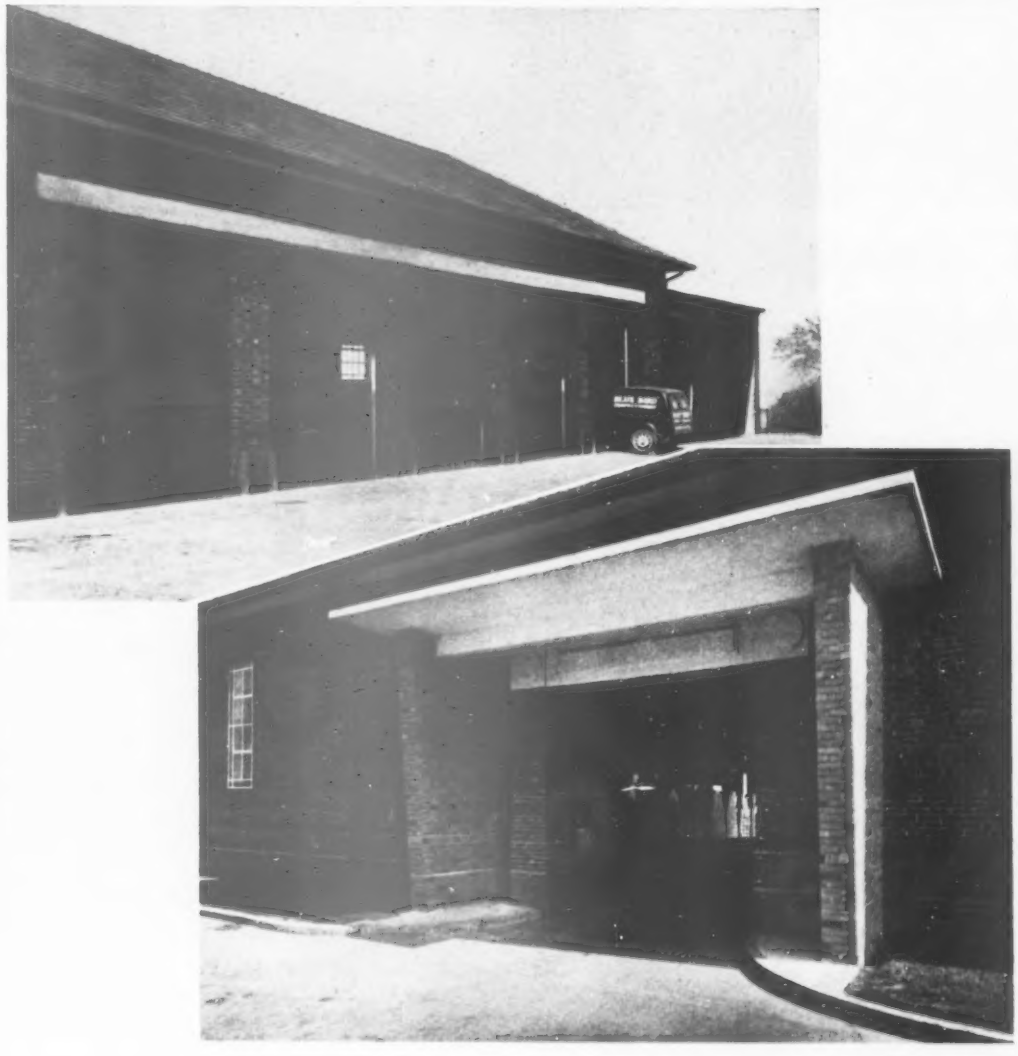

Architect : S. N. Cooke, Esq., Birmingham.

MESSRS. HARRY VINCENT, LTD., BLUE BIRD TOFFEE FACTORY, HUNNINGTON, WORCS.

The upper photograph illustrates Garage fitted with 7 Kinnear Shutters, while the lower picture is of one of the 6 Kinnear Shutters supplied for Main Factory. These 13 Shutters were erected to a series of five repeat orders between 1925 and 1935.

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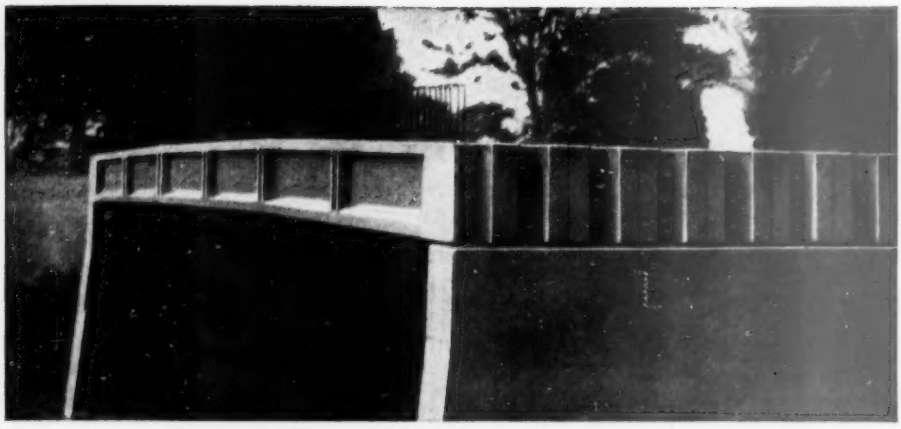
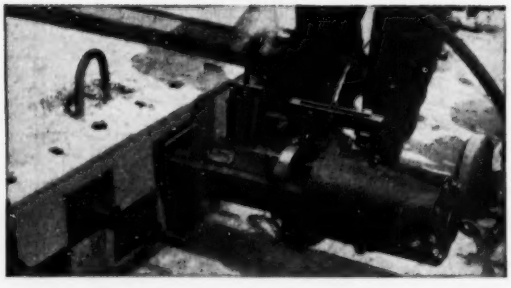
A



1100 ft. Prestressed Concrete Culvert for the Lee Conservancy Board. Engineer: Marshall Nixon, M.B.E., T.D., B.Sc., A.M.I.C.E., A.M.I.Mech.E.

WHICH WAY YOU LIKE . . .



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Working Stress of 95,000 p.s.i. An economical and effective system of prestressing concrete, using high-tensile alloy steel in bar form. The steel is provided with positive end-anchorage and does not rely upon bond to transmit the stresses to the concrete.

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To B.S. 1221-1945, Part A. Working Stress of 27,000 p.s.i. Economical for all types of concrete construction. Hard drawn, high tensile steel wire mesh, electrically welded at every intersection.

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The stress of 27,000 p.s.i. complies with C.P. 114, but in certain circumstances these stresses may be increased to 30,000 p.s.i. if due care is taken in the design, thereby showing still greater steel economy as recommended in the Ministry of Works Steel Economy Bulletin No. 1.

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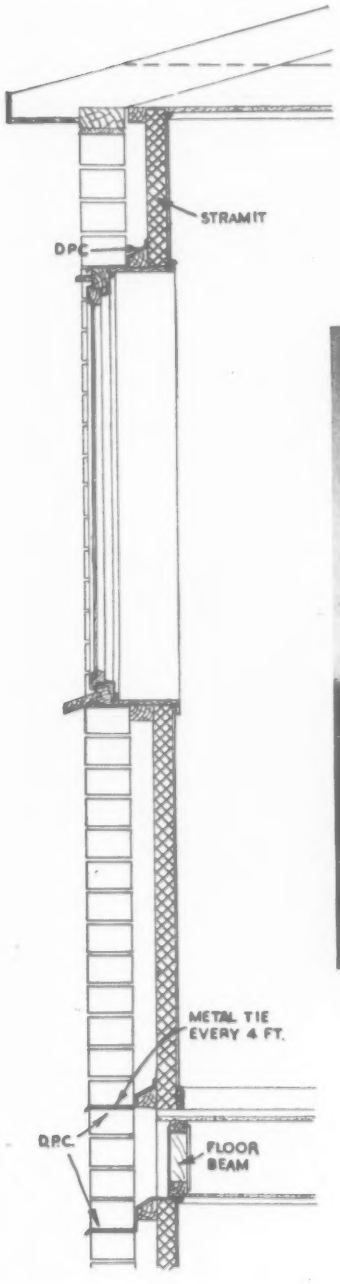
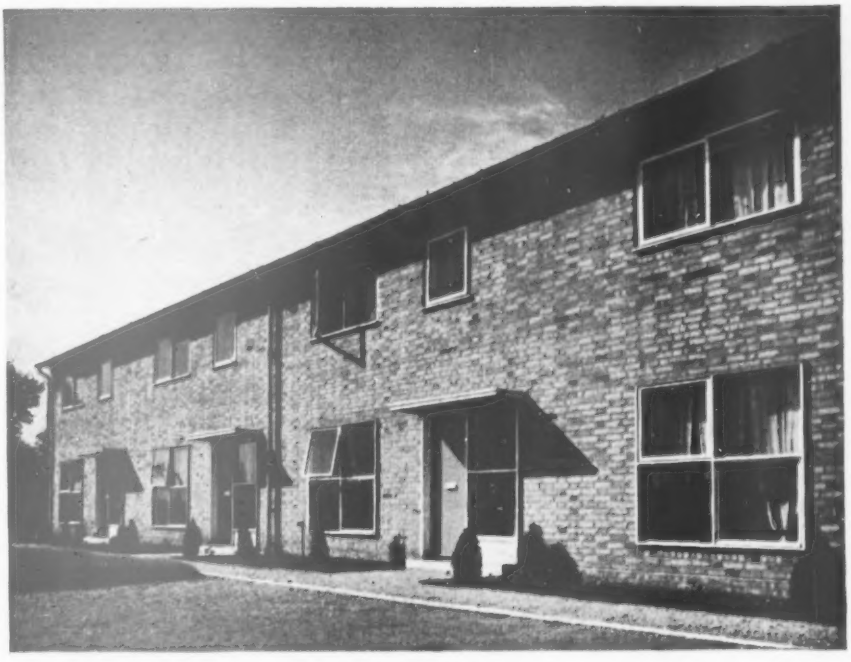


STRAMIT
SAVES BRICKS



Terrace Houses at Uxbridge designed by Messrs. Yorke, Rosenberg and Mardall.

Six months' delivery is now being quoted for certain types of brick. With this in mind the possibilities of the type of construction illustrated will commend themselves, especially when the result is as attractive as the photograph. Further particulars are available on request.

The "U" value of this type of construction is 0.18.
Stramit does not support fire.

DEPT. L.A.2

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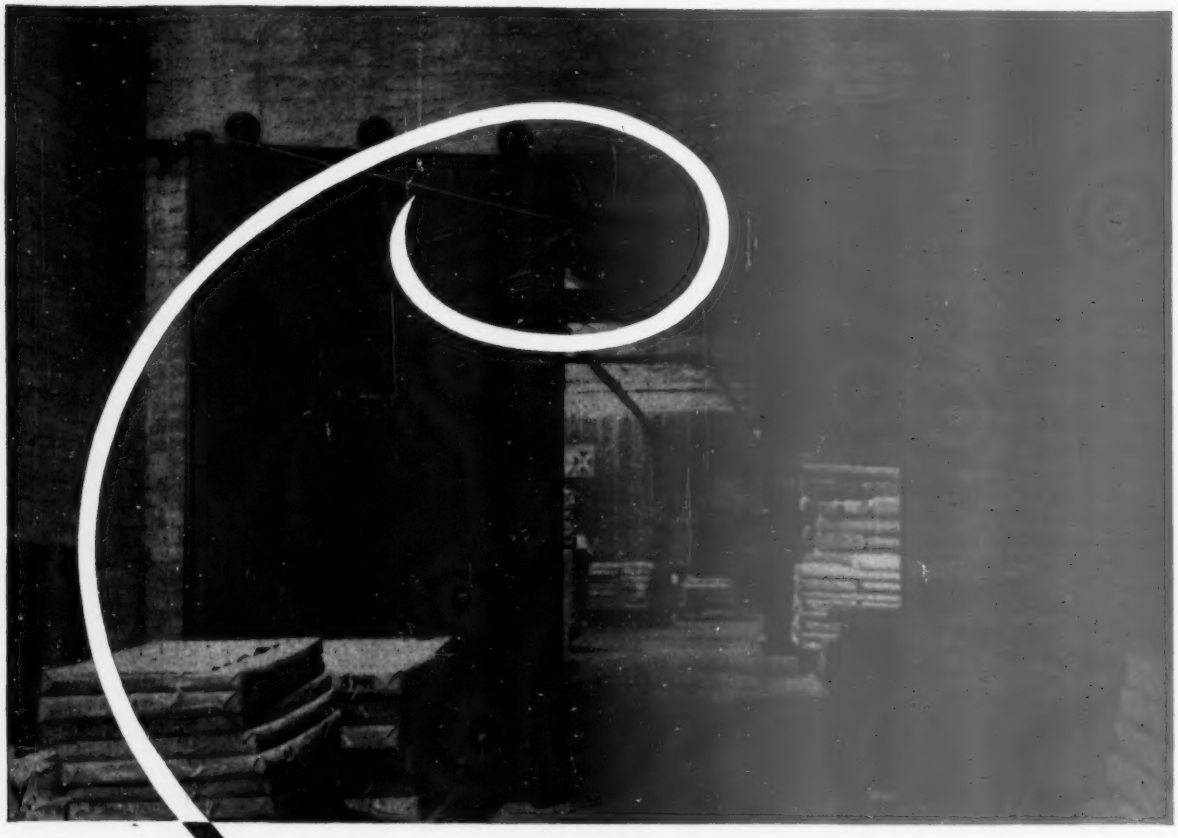

Automatic

Sliding Armoured Fire Resisting Doors

Wherever rooms are in communication one with another through doorways, or where floors are connected by means of stairways or lift wells, there are vulnerable points which demand protection against the passage of fire. All should be sealed by the fitting of efficient fire resisting doors.

★ *The illustration shows an automatic sliding armoured fire door installed in a paper mill.*

122

MATHER & PLATT LIMITED

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Photograph of the premises of Messrs. Reckitt & Colman Ltd., Hull, by courtesy of the owners.
Architects: Messrs. Yates, Cooke & Darbishire.

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Quinton, Birmingham

This imposing inn, situated on an important island site on the outskirts of Birmingham, owes much of its attractiveness to its clean, bright facing of silver grey SNOWCEM. Apart from its decorative value, SNOWCEM has given it added weather protection.

A priming coat of Cemprover No. 1 was first applied followed by two coats of SNOWCEM; Cemprover No. 1 also used in the undercoat.

Owners: Mitchells & Butlers Ltd.
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Premises erected 1936 — Architects: Bateman & Bateman, Bennetts Hill, BIRMINGHAM.

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This water… does not brush, peel or flake off.

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THE SOUTH WALES PORTLAND CEMENT & LIME Co. Ltd.,
Penarth, Glam.

Concrete units by ATLAS

The range of ATLAS concrete units is more comprehensive than some think. This photograph of a carpenter's workshop shows ATLAS **building blocks** (used for walls and pillars), ATLAS **pre-stressed concrete beams** and ATLAS **pre-cast roofing** and **window units.** This form of building can be constructed throughout from ATLAS products and is an answer to many building problems.

ATLAS STONE COMPANY LIMITED

Write for further details. *The full assistance and advice of ATLAS technicians is freely available at the drawing board or planning stage.*

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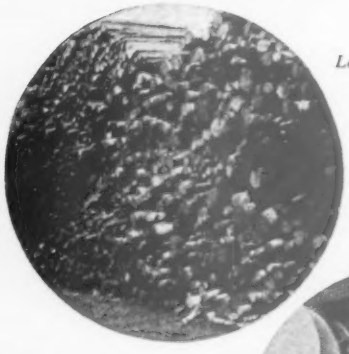
3 AS/1

SUNDEALA Still Make Best Boards In 1953

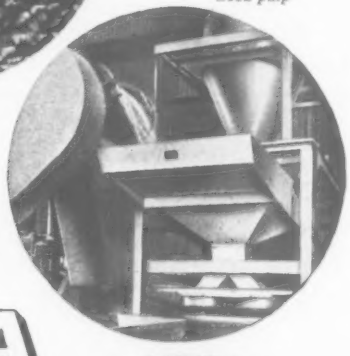
Logs arrive at the Sundeala Factory



Log pile

Converting logs into chips

Grading chips prior to conversion into wood pulp



Estd. *1898.*

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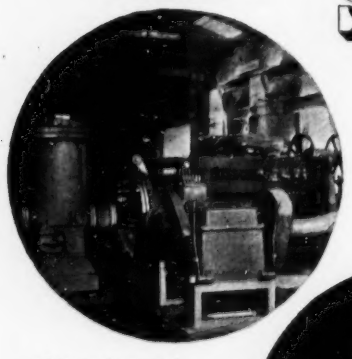
SUNDEALA

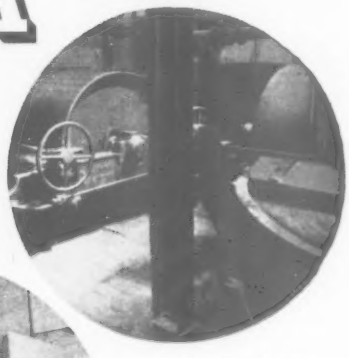
HARDBOARD

MEDIUM HARDBOARD

INSULATION BOARD

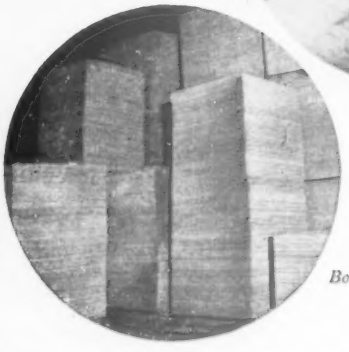


Converting wood chips to wood pulp



Beating the wood pulp

Sundeala boards can be bent to shape



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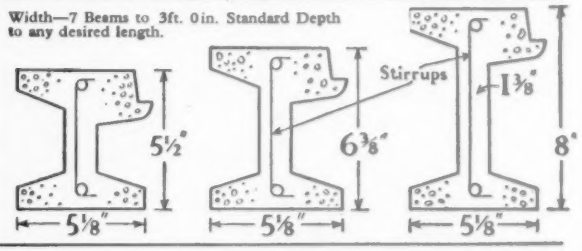

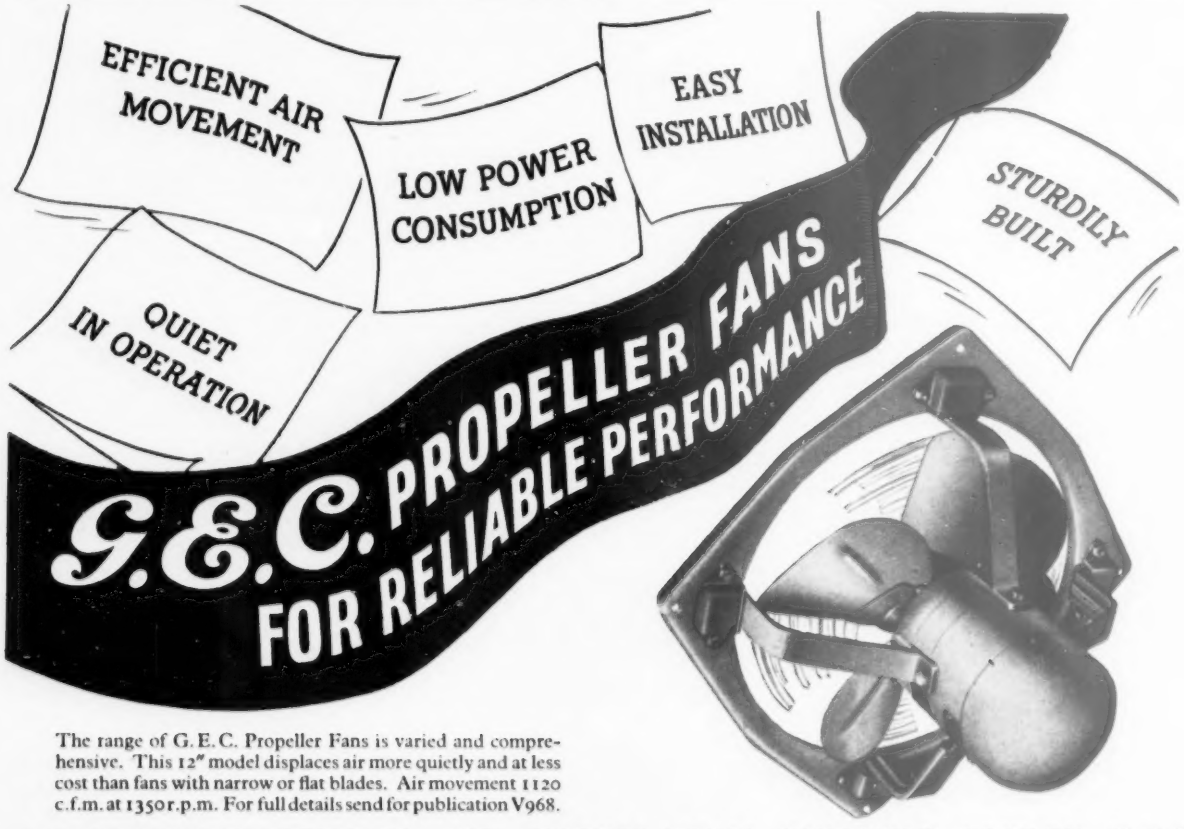

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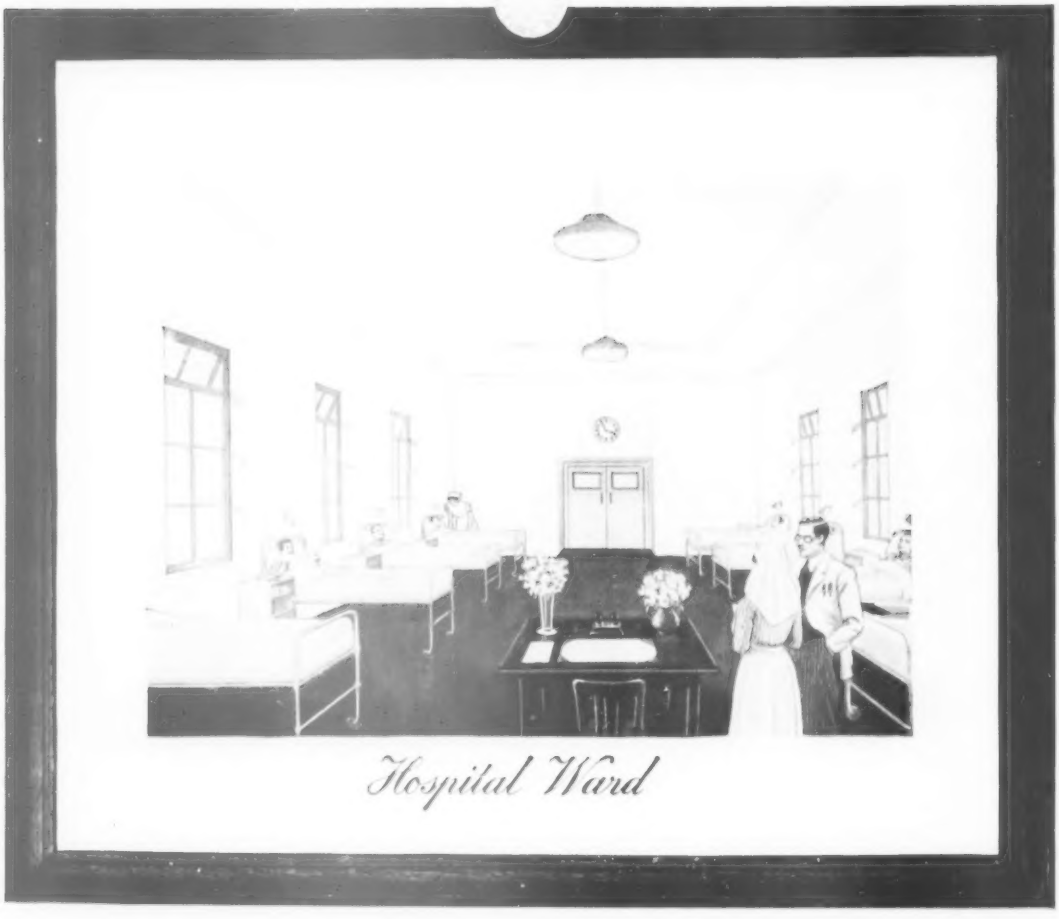

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FAROMAT is essentially right as the wall decoration for Hospitals and Clinics. The matt surface is smooth and durable, admirably suited to a busy and efficient routine, and the colour range includes those discreet, restful tones which ensure an atmosphere of clean and quiet spaciousness. Incidentally all colours are intermixable.

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ECONOMY OF BUILDING MATERIALS

M.O.W. Report by

Sir Charles J. Mole, M.V.O., O.B.E., F.R.I.B.A.,
Director-General of Works, Ministry of Works (Chairman).

Sir F. Arthur Whitaker, K.C.B., M.Eng., M.I.C.E.,
Civil Engineer-in-Chief, Admiralty.

Mr. G. H. Fretwell, C.B., M.I.C.E.,
Director-General of Works, Air Ministry.

Major-General L. D. Grand, C.B., C.I.E., C.B.E.,
Director of Fortifications and Works, War Office.

Among the recommendations in this report, which represent the joint views of the Ministry of Works, the Admiralty, the Air Ministry and the War Office, are the following:

Tubewrights' roof truss, 27 ft. 6 in. span for farm buildings.

A Tubewrights' roof truss of 30 ft. span for tropical buildings.

138. SHED WORK and SINGLE-STOREY WORKSHOPS

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Part of the mid-section truss (40 ft. span) of the Tubewrights' 'Usk' foot-bridge.

78. BRIDGES

"For trussed spans the use of tubular members will generally effect material saving, especially in foot bridges."

(p. 33 S.O. code 67-26)

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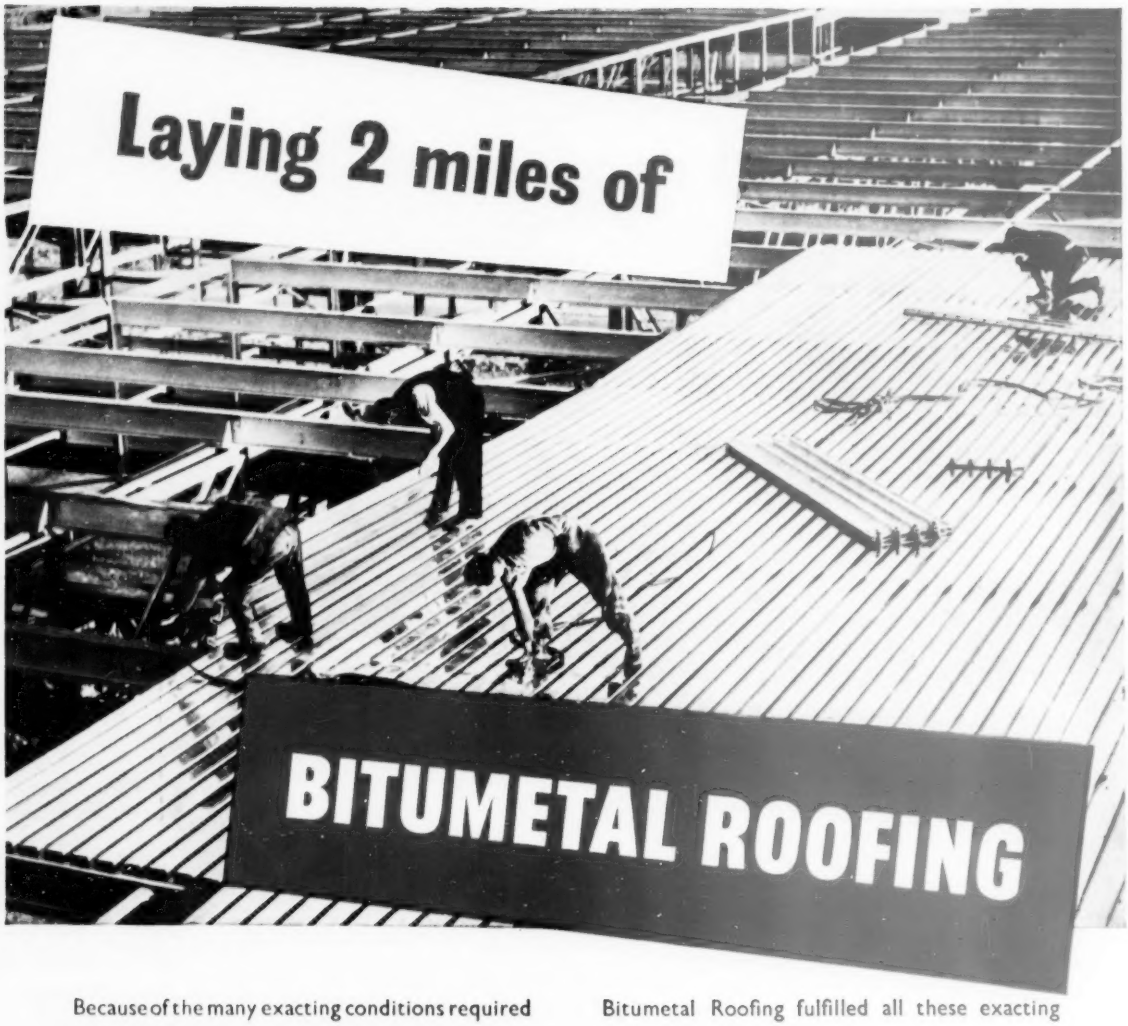

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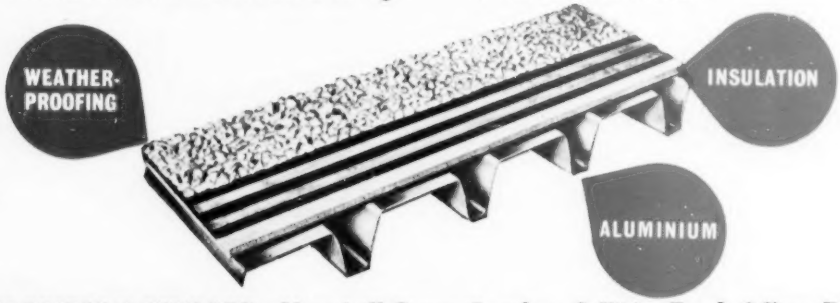

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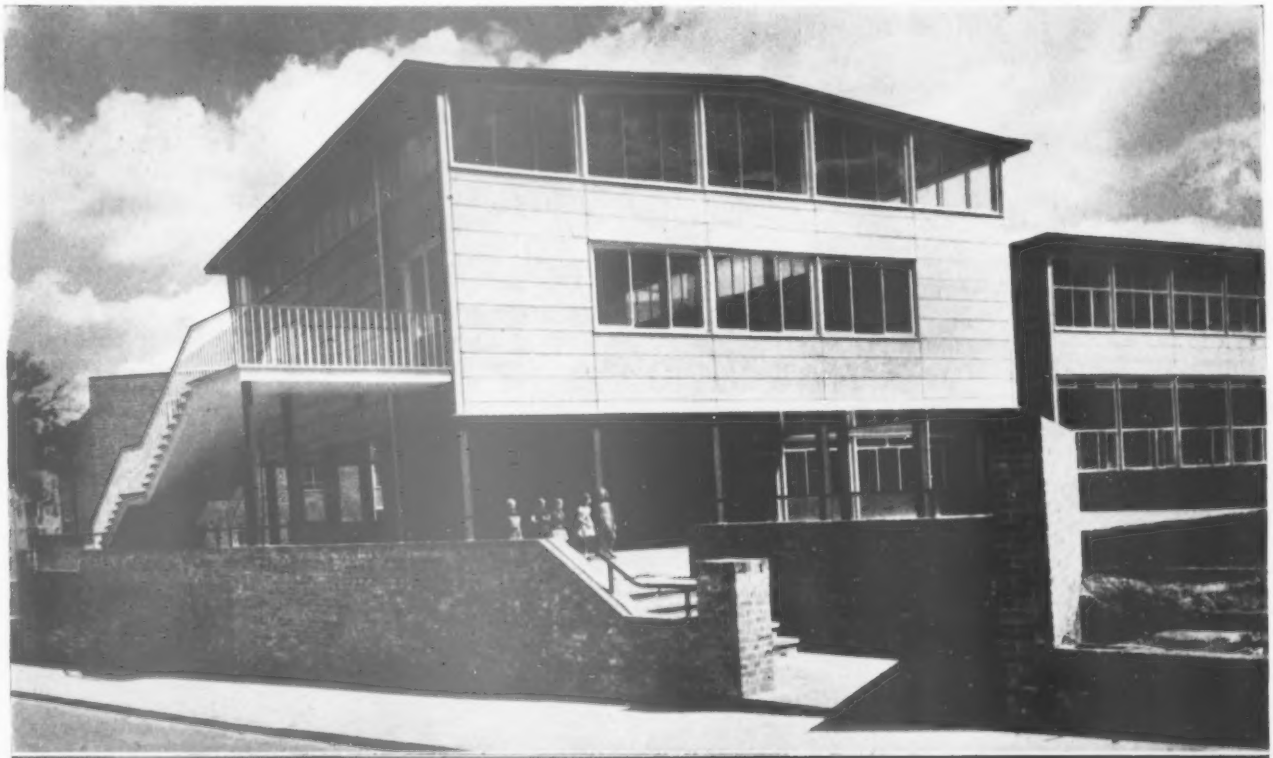

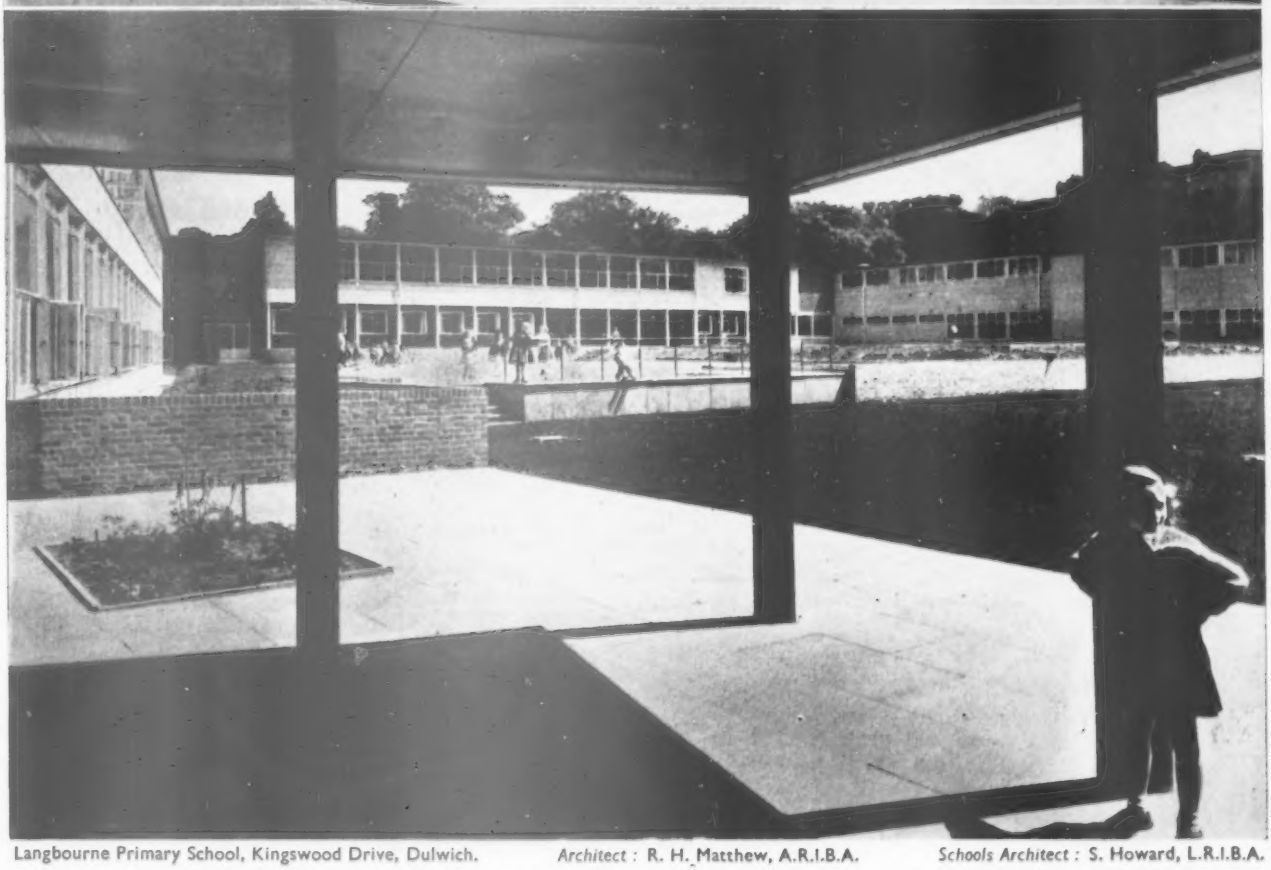

Langbourne Primary School, Kingswood Drive, Dulwich. *Architect :* R. H. Matthew, A.R.I.B.A. *Schools Architect :* S. Howard, L.R.I.B.A.

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Vol. 204 No. 2

THE ARCHITECT & BUILDING NEWS

July 9, 1953

The "Architect and Building News" incorporates the "Architect," founded in 1869, and the "Building News," founded in 1854. The annual subscription, inland and overseas, is £2 15s. 0d. post paid: U.S.A. and Canada $9.00.

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SCHOOLS AND NATIONAL POLICY

THE House of Common's Select Committee on Estimates has accomplished, in its Eighth Report,* a work which should and probably will have a profound effect on administrative methods in this country, particularly those which affect the relationships between central government departments and local authorities.

The particular subject of investigation of the Report was Schools; it is unfortunate that it did not appear in time to be used as a reference when the recent papers of the R.I.B.A. Canterbury Conference were written and discussed. It strikes us that a good many points then made and given might thereby have been affected and even reversed.

The findings of the Committee are definite and blunt. In fact the Report makes reading that can only impress by candour and hard-headed attack on problems which could be so easily evaded by round-the-corner comments or the common administrative method of muddling the wider issues by the introduction of details and comments which may make fine individual trees into an impenetrable wood. If the net result of the Committee's work can be summed up in a few words, it is a recommendation for sensible statistical planning over wider areas and for longer periods than at present hold. The Report recommends therefore that the school building programme in England and Wales should be organized on an extended basis of three years and that the Ministry of Education should undertake a national survey of the older schools throughout the country as a first step to meet the rapidly deteriorating and even dangerous conditions into which many of the older schools have fallen. The Committee even recommends that some should be pulled down immediately or that drastic repairs, at considerable cost, should be undertaken to meet the shortage of school space and the overcrowding which are now so prevalent, even in the new schools.

*Report & Minutes of Evidence: *Schools*. H.M.S.O. (1953) Price 9s net.

We have always maintained that dealing with existing and more or less out-of-date property is an essential part of a total attack on the housing problems of the country. It would appear that the same principle needs as strong an emphasis in the equally important field of schools. New schools are not enough and cannot, for many years, meet the needs. They are apparently, in many places, being provided at the cost of the older and slum-like schools which still must be used. Some time ago we asked whether it was not true to say that too many houses were being built, because, with limited national resources, the equally essential needs of maintenance and modernization of usable older property could not be met and therefore could not be an asset in assisting the solution of the housing problem. The M.O.E.'s estimate for new school building of all kinds for 1952-1953 was £56,000,000. If this typical annual sum could be redistributed for a year or two to include work on old schools (or would it be better to stop all new work for a year?—the said millions would catch up a lot on repairs), the state of education in this country might be improved.

It may be held that to advocate methods of make-do-and-mend, even of a temporary nature, is to support a policy of semi-despair; but we think not. A child has only one life and only a short period, some 10 to 12 years, is spent in intensive educational preparation for the rest of its life; the loss to the nation and to the humanities by bad educative conditions during those few years can be incalculable, for the child is father to the man.

We would say that, like housing, schools cannot be dealt with in any sectional or piece-meal way. The problem is one of planning a complete attack on a national front, old and new alike whether in new estates, long-existent urban areas or rural districts.

The Select Committee went even further into the idea of better planning-ahead, for the Report

stresses that the gap between house-building and school-building, even in new estates, cannot be closed while the amount of capital expenditure now going into the school-building programme is insufficient to carry out the expressed policy of the Government, namely " that the school-building programme should, in general, keep pace with the housing programme." If the implications of this are true it is a serious indictment of bad planning and lack of co-ordination between Local Authorities and Central Government on a very wide front.

The Select Committee made several recommendations for investigations into the cheapening of school building. For instance, the Education Act of 1944 gives powers for the exemption of school building from local byelaws and this may tend, by wise use, to reduce costs. Does this provision include the London Building Act? From the Minutes of Evidence we conclude that it does not. The Committee suggests that the M.o.E. asks all Local Authorities to report upon maintenance as required by special or prefabricated methods of construction, after reasonable periods of use. This is an important point and one which, we believe, is already worrying certain local Authorities in the country. The amount of glass used in schools should receive attention with a view to effecting structural economies without harm to the eyesight of children.

Altogether it would seem that this watch-dog policy of examining estimates, even if the precedure suffers from unavoidable time-lags, is a very useful one and can be a cleaner-out of grooves. It is certainly proof of the saying that to touch the pocket can prove the quality of policy.

EVENTS AND COMMENTS

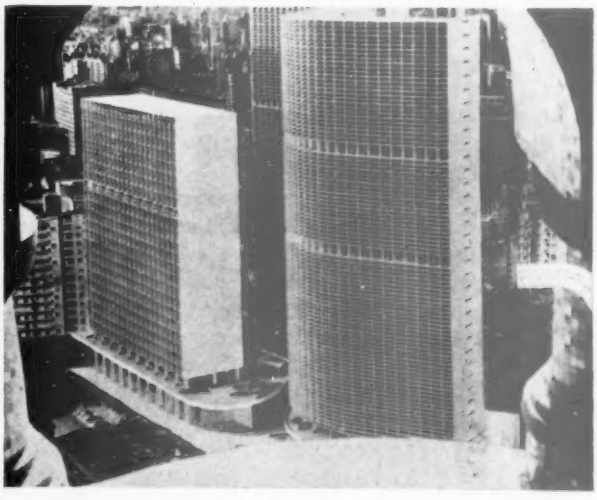
SLOW PROGRESS

M.o.W.'s report on incentive schemes in the building industry covers some 26,000 sites and 300,000 men, a survey of which was carried out in June last year. The results are somewhat disappointing in that less than half the men (41 per cent) and less than a third of the sites had bonus schemes in operation, and, moreover, these figures were almost exactly the same as those reported after the June, 1951, survey. The building industry has made quite a considerable song and dance about incentives during the last five years, but, in fact, quite a number of both builders and operatives dislike them, and the present state of affairs cannot be regarded as satisfactory. Proper bonus schemes are not easy to evolve, particularly with repair work, and far too many firms take the easy way out of paying a flat amount all round and not linking it to output at all. Is there any evidence whatever to show that bonuses do, in fact, show any reduction in wage costs? This, after all, is what they were supposed to do when they were introduced.

ALUMINIUM SYMPOSIUM

The large proportion of well-known architects who attended last Wednesday's symposium organized by the Aluminium Development Association indicates the widespread interest in the use of this metal in buildings.

Guests at the Symposium were received by R. D. Hamer, Esq., the President of the Aluminium Development Association, who presided at the excellent luncheon at Claridges where the Symposium was held. In his speech at luncheon, Mr. Hamer, by happy coincidence, was able to refer to the announcement that morning of the lowering of the market price of aluminium. He also mentioned that aluminium has already equalled in production by volume all the other non-ferrous metals put together; and in this country aluminium fabricating capacity has increased five or six times since the war. World production of the virgin metal is up by the same amount in the primary metal producing areas. All that is needed now, it seems, is for the price to come down a great deal further.



This picture from the Brazilian Architecture exhibition is of the model for Copan hotel and apartment buildings designed by Oscar Niemeyer for Sao Paulo. City planning problems obviously remain to be tackled.

Sir Wavell (Wakers) Wakefield, M.P., Chairman of the Parliamentary Scientific Committee to which the Aluminium Development Association has recently been elected, replied on behalf of the guests. He spoke of the aims and objects of his committee, which acts as an important liaison between Parliament and scientific work.

No doubt he leads his committee with the enthusiasm and vigour of his rugger-playing days. A report of the papers read and discussions appears elsewhere in this issue.

R.F.H. ACCOUNTS

Disturbing rumours reach our ears on occasions of the time it takes to settle final accounts on some building contracts. Now comes a question from Mr. Norman Farmer to the Chairman of the General Purposes Committee of the L.C.C. at their meeting of June 30, asking whether the final accounts for the Royal Festival Hall have now been

settled. Apparently a claim of £140,000 is still the subject of negotiation, but it is hoped a final settlement will be reached by the end of this month. It is, of course, two years since the Hall was opened.

SILVER MEDAL FOR SERGEI KADLEIGH

Congratulations to Sergei Kadleigh, who has been awarded a silver medal by the Royal Society of Arts for his paper "The High Paddington Scheme," which was read before the Society in March this year and afterwards published in points in *Architect and Building News* issue March 19, 1953. The Society awards six silver medals annually which are presented at the inaugural meeting of the following session. At the next inaugural meeting it is hoped the Duke of Edinburgh will take the chair.

More recently Sergei Kadleigh read a paper on population densities at the London Regional Conference of the National Housing and Town Planning Council.

WINDOWS ILLUSTRATED

A large and beautifully produced catalogue, No. 163, describing the products and methods of manufacture of their metal windows, has just been brought out by the Crittall Manufacturing Co., Ltd., of Braintree. This is quite the best illustrated catalogue which has come into the offices of *Architect and Building News* since the war. The book—which is really what it is—has 222 pages and was designed and produced by John Lewis. Among the photographers who are acknowledged generally, Sydney Newbery, John Maltby and John Tarlton are mentioned specially. If you are sent a copy of this production, dear reader, consider yourself fortunate, for it is not for general distribution.

Sir George Peplar receiving the Town Planning Institute's Gold Medal from Mr. S. L. Beaufoy, the President. This was the first award of the medal.

ROYAL TRAINS

Anyone who hasn't yet been to see the Royal Trains at Battersea Wharf Station (opposite the Eastern entrance to the Festival Gardens) should go at once before it closes on Monday. Queen Adelaide's 1842 coach steals the show, but there are many other things to see, including a coachful of drawings and other relics; here, for instance, is a G.E.R. signal decorated for the wedding of Edward VII and very reminiscent of Sir Hugh's rose-entwined Coronation lamp-posts, as well as tickets, uniforms, souvenir programmes and other enjoyments. Readers outside London will be glad

The new Car Ferry Terminal for the Dover Harbour Board was opened on the 30th of June by the Rt. Hon. Alan T. Lennox-Boyd, M.P. Minister of Transport. The Picture shows the West Elevation of the Reception Centre, designed by J. M. Wilson, H. C. Mason and Partners, who also designed a petrol filling station to the West of this block. The rest of the Terminal consists of a Customs Inspection Building and twin Unloading Ramps, each over 90ft. long, which enable cars to be driven on and off the ferry vessels at any state of the tide.

to hear that a prolonged tour is proposed, starting at Birmingham on July 17, and thereafter to a dozen or more centres from Dundee to Plymouth. Talking of railway exhibitions it seems that the idea of a permanent museum at Nine Elms has been, for the moment, shelved, largely because of the difficulty of getting there, but it is intended to keep the Hardwick Room at Euston for exhibitions at regular intervals.

CRI DU CŒUR

Architect, 27, requires position where ability to write well is necessary. Anything considered. Write Box —. Thus the Agony Column of *The Times* last week. Can he write specifications well? Presumably so. What an asset he would be in many offices writing specifications in clear and simple language. Or does he want to write well about architecture instead of practising it? The "anything considered" suggests that he doesn't really know, but perhaps he is in one of the supposedly over-populated age groups.

LOCK UP YOUR PIXIES

Lovers of concrete ornaments for house and garden decoration should be warned by the fate of a cat, three female figures, two alligators, two gnomes and a bird, all in concrete, which have recently been stolen from verandas in Watford. It is not clear from the report whether the perpetrator of this deed is being pursued for punishment as a vandal or reward as a public-spirited citizen.

NEWS OF THE WEEK

L.C.C. Chairman Knighted

Her Majesty Queen Elizabeth II conferred the honour of Knighthood upon the Chairman of the Council, Mr. Arthur E. Middleton, F.S.A.A., J.P., at the L.C.C. Reception in celebration of the Coronation, held at County Hall on Monday, July 6.

Housing Progress

The total of 26,013 houses and new permanent houses and flats were completed in Great Britain during May, which compares favourably with the 19,488 completed in May, 1952. Of this total 20,135 were built by local authorities, 4,554 by private builders and 423 by housing associations. 830 were built by Government Departments and 71 were rebuilding of war-destroyed dwellings. No temporary houses were erected either by local authorities or by Government departments.

International Council for Building Research

The International Council for Building Research (CIB) was set up on June 25 at the European Office of the United Nations by eleven "founder members." "Founder members" of the Council include representatives from the following countries: Austria, Belgium, Denmark, France, Italy, Netherlands, Sweden, United Kingdom, Western Germany, Norway and Finland. The United Kingdom are represented by the Building Research Station, D.S.I.R.

New President

Mr. James W. R. Adams, O.B.E., P.P.T.P.I., has succeeded Miss Brenda Colvin as President of the Institute of Landscape Architects for the session 1953-54.

The United Kingdom Pavilion at the Rhodes Centenary Exhibition, Bulawayo, which was officially opened by Queen Elizabeth, the Queen Mother on July 3. The designers of the Pavilion were Misha Black and Alexander Gibson of the Design Research Unit. An article on the exhibition will appear in next week's issue.

R.S.I. Chairman-elect

Dr. H. C. Maurice Williams, O.B.E., has been elected Chairman of Council of the Royal Sanitary Institute from October 1, 1953. Dr. Williams is Medical Officer of Health to the County Borough and Port of Southampton, a Past President of the Society of Medical Officers of Health, and the Honorary Secretary of the Association of Sea and Air Port Health Authorities.

N.F.B.T.E. Half-Yearly Report

Mr. Wilfred Horsfall, of Liversedge, Yorkshire, President of the National Federation of Building Trades Employers, speaking at the Half-Yearly Meeting of the N.F.B.T.E. at Scarborough, on June 24, said: "The latest housing figures show that building trades employers are keeping their promise that, with extra materials, there would be more building in 1953 than in 1952.

"The fact that the production of cement and bricks is now higher than at any time since the war shows that the manufacturers are well on the way towards complete recovery after many years of interference from the centre. We are, however, still experiencing difficulties regarding these two materials, but the encouragement of an expanding building programme will, I think, stimulate the manufacturers to intensify their efforts to deliver the goods and so help building output to increase still further. In the meantime we must help by placing our orders in advance, by being economical, and, so far as the building owner and the architect will allow us, by using substitute materials whenever and wherever we can.

"We hope that before long the licensing limits will again be raised and that the free enterprise builder will be given the greater scope foreshadowed by the Chancellor in his

Budget speech when he said that we must enter a new phase in our housing policy in which private enterprise must play a progressively bigger part and thus proportionately relieve the Exchequer. We want all controls removed, including the restriction on the use of timber; we want a ban placed on the compulsory acquisition of builders' land by local authorities and we want those authorities made to behave reasonably, as they are empowered to do, under the New Streets Act.

"The numbers of houses built and under construction by free enterprise builders are higher than at any time since the war but there are still too many houses being built by local authorities for occupation by people whose means are such that they cannot justify claims to subsidies given at the expense of those who are paying their own way and often living in inferior accommodation."

COMING EVENTS

Contemporary Brazilian Architecture

● July 8 to July 31. Exhibition of Contemporary Brazilian Architecture at The Building Centre, Store Street, W.C.1.

Institute of Contemporary Arts

● July 13 at 8.30 p.m. The latest discussion in the series of Architectural Criticisms, to be held at the Roehampton School. For particulars on how to reach the school, telephone I.C.A., at Grosvenor 6186.

Town and Country Planning Association

● July 15. Visit to Crawley New Town. Particulars from the Planning Centre, 28, King Street, Covent Garden, W.C.2.

Tinplate Prices

The Minister of Supply, Mr. Duncan Sandys, has made an Order affecting tinplate prices. As is said in the Explanatory Note to the Order, it increases the basis price for tinplate by 1s 1d per basis box and for tin coating extras by corresponding amounts. But, in consequence of the price reduction resulting from the operation of the "Automatic Variation Adjustment" for tin, the maximum permitted selling prices for tinplate will not be changed.

The purpose of the Order, which has been made with the agreement of the principal tinplate consumers, is to stabilize temporarily the maximum selling prices of tinplate pending a detailed examination of the price structure of the industry.

The Order, The Iron and Steel Prices No. 3 Order, 1953, S.I. 1953, No. 1017, came into effect on July 1, and is on sale at H.M.S.O.

CORRECTION

On p. 767, issue of June 25, Fig. (11) shows a Bath Pillar Tap and not the Sink Type, the difference being 2½in more in height in the sink model to allow sufficient clearance for kitchen utensils.

CORRESPONDENCE

R.I.B.A. Conference

To the Editor of A. & B.N.

Sir,—Mr. C. H. Aslin's letter as published in your issue of July 2 forms, I find, most interesting reading, as:—

(a) He suggests that if I read the two Conference papers a little more carefully I will find the reason for the £13,000,000 difference between Mr. Johnson Marshall's figures and his own.

I feel I should draw attention to the fact that if Mr. Aslin had done this himself at the Conference he would not have thought it necessary to apologise from the platform for this discrepancy, as it was then quite obvious that he, too, understood that both figures represented the same thing as I have done, and his excuse now "wears a bit thin," as everybody who was present at that time, I feel sure, will confirm.

(b) With regard to Architectural History, it is quite apparent, to those who really know, that Mr. Cecil Stewart, in his letter as published in your issue of 25th June, and now Mr. Aslin, are confusing "overseers, builders and craftsmen" with architects.

I repeat that there were no architects, as we now know them, before Bramante (1444-1514), who is acknowledged to be "the father of the profession," as he was the first man to study the subject as a whole, conceive the complete building and carry out in all trades.

Three eminent architects, two of whom are well-known professors of architecture, confirm this.

It may well be that in the search for the mass-produced, modernistic "stick-and-rag" type of constructional design too little time has been spent on the study of the architecture of the past.

I am, etc.,
C. S. F. WITTS, Lt.-Col.
Member of the K.C.C.
Deputy Mayor of Margate.

To the Editor of A. & B. N.

Sir,—With regard to Mr. C. H. Aslin's letter in your last issue, may I be given the opportunity to enlighten those of your readers who were not present in the Leas Cliff Hall at Folkestone, by stating that this gentleman happened to be the first to speak and that, without any prompting, he said, ". . . in my paper, I gave the sum of £53,000,000 as the annual expenditure for the erection of schools, whereas Mr. Johnson Marshall gives it in his paper as £40,000,000. All I can say to this is that *both* figures came from Mr. Johnson Marshall.

It was, therefore, aptly proved (as all in the hall will confirm) that Mr. Aslin was then of the opinion that both figures related to the same thing, otherwise he would not have tried to excuse himself at the expense of his colleague. Having thus "passed the buck," he now tells his critic from Margate, who understands the situation as Mr. Aslin did, that if he would read the two papers through more carefully, he would find that the figures referred to two different things.

Mr. Aslin may be pretty adroit at sliding out of difficult situations, but he cannot get away from this one so easily. Furthermore, it should be noted that Mr. Johnson Marshall, who was the last speaker, having heard what Mr. Aslin had said about him, did not seize the opportunity to put over Mr. Aslin's present excuse and thus save the faces of these two lecturers.

The inference to be drawn from this lapse is too significant to comment upon.

If this Vice-President of the R.I.B.A. is wise, he will drop the matter forthwith.

I am, etc.,
G. A. BRYAN, A.R.I.B.A.

Licensing of Work on Existing Dwellings

In Circular 39/53 with reference to the licensing of work on existing private dwellings (maintenance and repairs, conversions, improvements, etc.), the Ministry of Housing and Local Government says that local authorities were asked in Circular 5/50 (issued on January 12, 1950) to restrict the value of licences issued for these purposes to 80 per cent of the rate of issues for 1949. Since then they have been working to monetary quotas for the value of licences to be issued.

The position has now been reviewed after experience of the volume of licences applied for and issued since January 1, 1953, when the "free limit," for work which may be done in a year on a dwelling without a licence, was raised to £500. The demand for licences for work over £500 does not require the continuance of quotas, and local authorities need no longer work to them.

They should, however, continue to judge applications on their merits according to their present standards of need. In particular, priority should be given to applications for licences for:—

(a) Work required under statutory notice, and other necessary repairs and maintenance.

(b) Conversions and adaptations to provide additional units of accommodation.

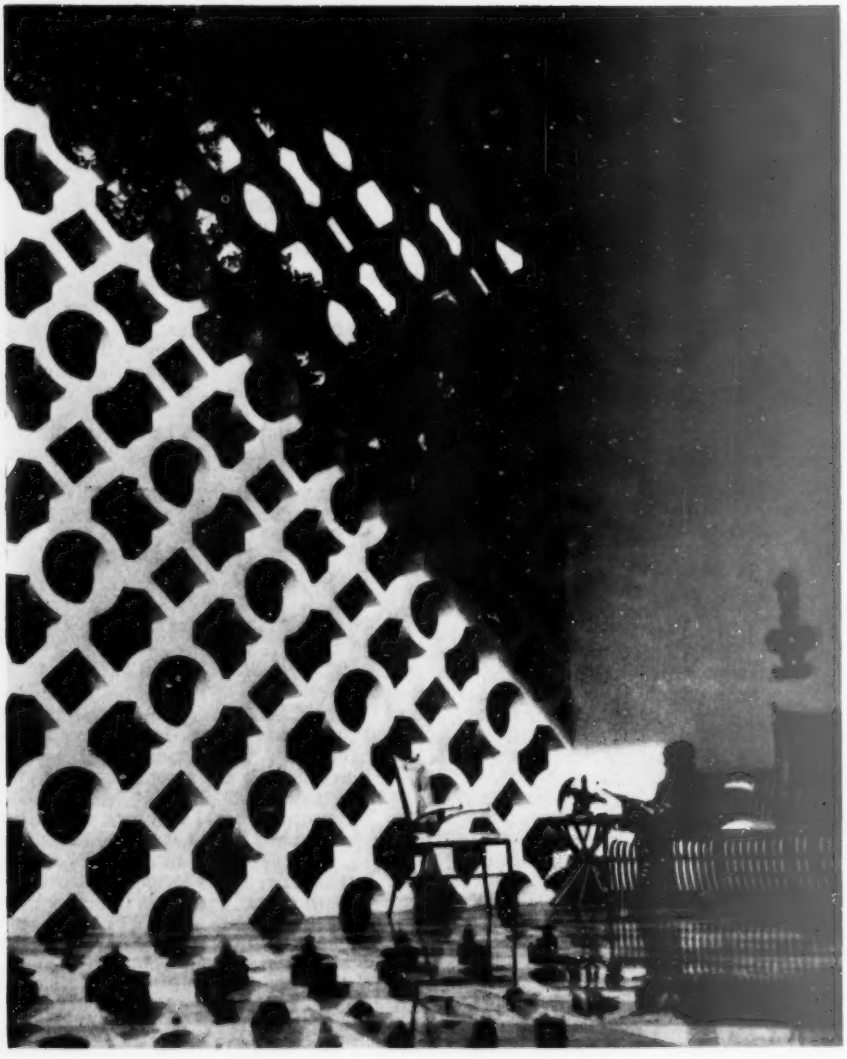
(c) Essential improvements (e.g. provision of indoor sanitation).

(d) Installation of fuel-saving equipment (e.g., improved solid fuel appliances and, for larger buildings comprising several dwellings, central heating and hot water facilities).

Circular 5/50 and Paragraph 1 of Circular 108/50 are withdrawn; the limit below which work can be done without an authorization remains, however, at £500.

It will no longer be necessary for

[Continued on page 51



The illustrations in this article relate to or are on view at the Exhibition of photographs of Contemporary Brazilian Architecture which was opened by H.E. the Brazilian Ambassador at the Building Centre yesterday.

The view on the left is an interior one of a residence in Gavea. Architect: Olavo Redig de Campos.

The Contemporary Architecture of Brazil

THE arrival of the first Exhibition of contemporary Brazilian architecture in this country is the kind of event which tends to make one return to architectural first principles, and raises once again in a new and exciting way the question of the validity of the whole contemporary movement.

Only since World War II have we in this country been made aware that a major architectural contribution was being made in an unexpected and slightly inaccessible place, and only now for the first time can British architects see a representative selection of large and clear photographs of buildings, some now world famous, all designed in a through-going, contemporary manner but with a difference. For the younger members of the profession have been so impressed in this country by what they have seen from time to time in the technical press (and not least in the pages of the *A. & B.N.*) that there has even been a danger of the Schools "going Brazilian," and this is just the kind of flattery which the Brazilian architects in their modest way would be the first to deprecate, for the very good reason that their architecture is so essentially Brazilian.

Urban Development

In this short review of the new Brazilian architecture a few background notes may be useful, and it is perhaps worth reminding readers of some of the factors which have conditioned and have helped to mould its form.

First, the vast size of the country. Although the population is nearly the same as that of Great Britain and Northern Ireland it is about 30 times as large, with a wide variety of geographical characteristics. But of course when we speak of Brazil in architectural terms, we still mean only the narrow eastern coastal strip, which is the only part of this sub-continent to be developed. And of this coastal strip, intensive development is still largely confined to the areas around the larger cities, and of Rio de Janeiro and Sao Paulo in particular.

Although one of the earliest countries of the New World to be settled by Europeans (Sao Paulo celebrates its fourth centenary next year), Brazil is still a young country, with a great potential future which may well change everything out of recognition in due course, including its architecture.

At present the cities are predominantly commercial in character, although numerous light industries have been springing up, mostly since the War. The amount of heavy industry is still negligible, the first steelworks having only recently been completed. This deficiency has had an important effect on structural design, as structural steel and many other building components (their number is rapidly

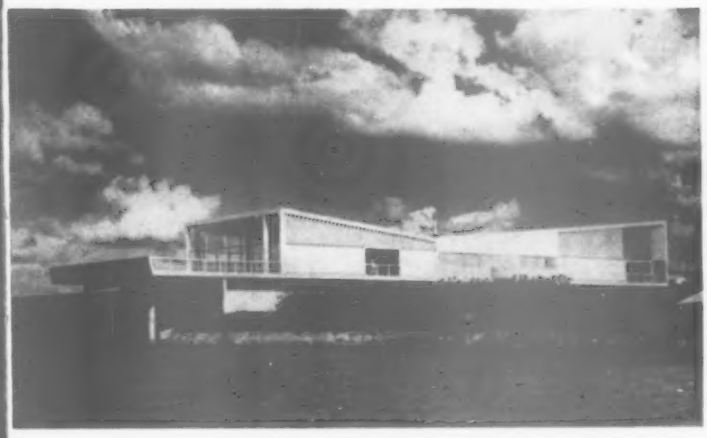
The Work of Oscar Niemeyer :

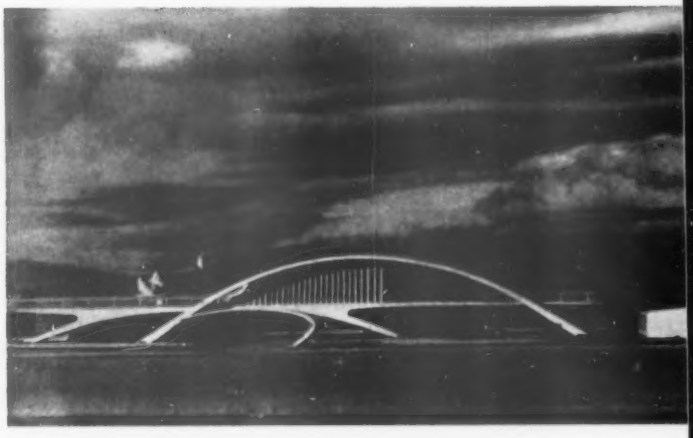
Yacht Club, Pampulha

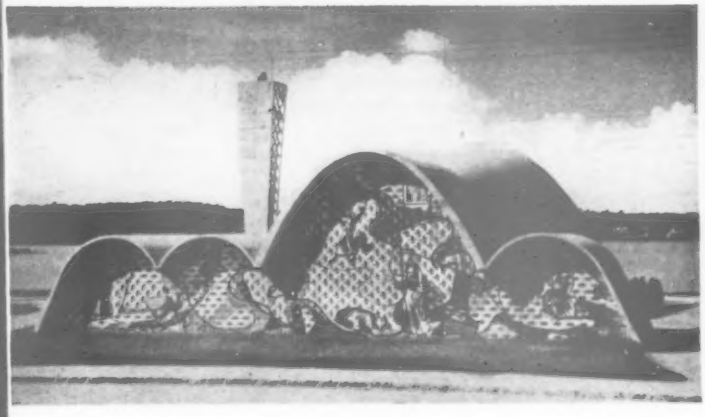
Church of St. Francis of Assisi, Pampulha

Lebanese Club, Pampulha

Peixe-Duchen Foodstuff Factory, Sao Paulo







by PERCY JOHNSON MARSHALL, *Dip.Arch.(L'pool), A.R.I.B.A., A.M.T.P.I.*

decreasing) still have to be imported. The Building Industry itself is still mostly organized on a craft basis, and some of the traditional craft techniques are still very much alive.

Climate

The climate along the coast is generally of the tropical, hot and humid variety, although it is somewhat cooler up on the plateau on which Sao Paulo is situated. But it poses special problems, and opportunities, for the architect, as was brought out so clearly in the recent Conference on Tropical Architecture. Everywhere the sun beats down with great strength, with an intensity of light and creating a depth of shade which gives the designer a much greater range of gradation, contrast and reflection than in the temperate zones. A serious technical problem is, of course, the need for protection against the sun, but this is offset to some extent by the absence of critical freezing temperatures. Psychologically, the effect of the climate on the designers has been to develop an extremely sensuous feeling for form and luxuriance as lush as the surrounding tropical vegetation. To see Burle Marx, for instance, in his own laboratory garden, proudly displaying an even more fantastically shaped plant than usual which he has evolved by crossing something from the Amazon with something else from Borneo, brings this sharply home to the chilled Northerner.

People

As Brazil was settled by the Portuguese, the traditional culture derives from Portugal. But there were also the indigenous Indian tribes, and large numbers of African slaves were brought over in the 17th and 18th centuries. In addition there has been large-scale immigration from almost every European country, as well as Japan, and the people are as mixed as any country in the world. This expresses itself in a wealth of new ideas and a readiness to accept them. On the debit side the contrasts of rich and poor are very great, luxury flats and villas contrasting strongly with "favellas" or shanty towns, where conditions have to be seen to be believed.

Architectural Background

The Indian tribes practised shifting cultivation and had practically no building tradition, and the Portuguese brought theirs with them. As the climates of the two countries were reasonably similar, few modifications were made, but it should be remembered that the Portuguese had been strongly influenced by Arab traditions, and many features of traditional Brazilian architecture can be traced to Arab origins. Characteristic are the thick colour-washed walls, low-pitched

roofs, and deep balconies with various kinds of protective sun screens (brise-soleil in one form or another have been known for centuries). Azuleijos, as the blue-and-white tiles are called, were used principally in the churches, as were mosaics, while the bold black and white pavement patterns both of Lisbon and Rio are famous.

No account, however short, could fail to mention the beautiful Baroque churches of Brazil. Although many of them present calm and dignified exteriors, a number, especially in the old gold mining town of Ouro Preto, have a plastic richness of form which it is well to keep in mind when considering the new work. The interiors, incidentally, are usually a blaze of gilded carving. In the 19th century Brazil turned away from its own traditions towards France for cultural inspiration, and a French classical revival still continues, even as salad dressing on some of the recent very high buildings.

The Arrival of Contemporary Architecture

As Commerce expanded in the 20s and 30s, Rio and Sao Paulo grew apace, and soon all the problems and mistakes of the North American cities were being repeated. Urban expansion created high land values in the centres, and thus forced office and residential development upwards. In Rio this was accentuated by the narrow platform of land suitable for building between mountains and sea—these natural features being both the glory and the heartbreak of the city. Building high meant a new structural material, and as steel was so expensive, the designers turned to reinforced concrete. It was this fact, coupled with the visit of le Corbusier as consultant on the Ministry of Education building in 1936, which has so largely influenced the form of contemporary Brazilian architecture. Before his arrival, almost every kind of modern style had been tried out, and an æsthetic chaos had been created, although throughout the 30s well-designed buildings were being built by such architects as Warchavchik and Lucio Costa, the latter, significantly enough being chief architect of SPHAN, the Service for the preservation of historic buildings.

The arrival of le Corbusier had, however, a great effect on the younger Brazilian architects. They were already in revolt against the outworn teaching of the National Faculty of Architecture (shades of our own inter-war School controversies!), and the impact of his visit was tremendous. The building for the Ministry that was its outcome also had a great effect, for, although le Corbusier was philosopher and friend, the building was designed and carried out by a group of young Brazilian architects. This is the most important thing of all, that there were, and are, a growing number of first-rate architects, brilliantly led, but not outdistanced, by Oscar Niemeyer, so much of whose genius went into the Ministry building. Niemeyer is in fact undoubtedly one of the most outstanding architects in the world to-day, but, as the Exhibition shows, he is by no means an isolated figure.

Contemporary Brazilian architecture, then, owes its genesis and expression, first to the rapid urban commercial development of the two main cities, then to the climate, limitations of the building industry and the still live building traditions, to the influence of le Corbusier, but most of all to the outstanding ability of the younger architects, who have been able to take advantage of his fertile ideas without being reduced to merely copying them. Their contribution is, however, seriously limited by the nature of present-day Brazilian society, which makes it necessary for them to expend their imaginations on the too-limited building needs of official organizations or the whims of sometimes unpredictable private clients.

Having made a brief survey of the conditions within which the architecture was created, let us return to the buildings themselves, and describe some of their more outstanding characteristics.

Characteristics—1. Form

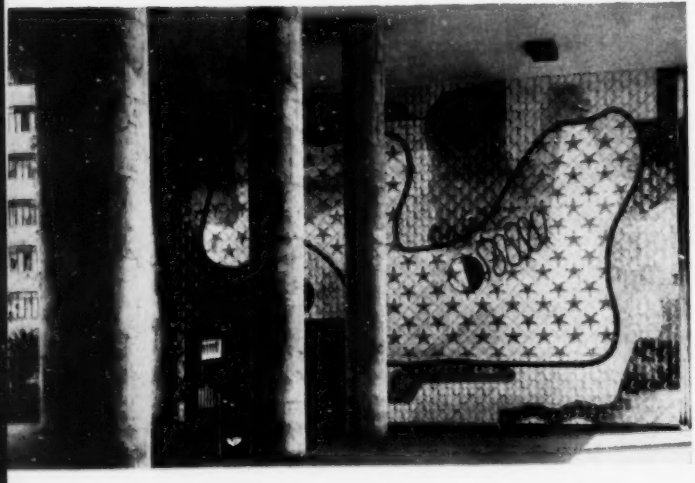
Perhaps the most outstanding thing about most of them is their form. Wherever possible they enclose, or merely float over, space with the most exciting flowing shapes, echoing their Baroque predecessors, but in a louder key. To be successful these curving shapes have got to flow smoothly and beautifully, and this is a gift which not all possess. The work of Niemeyer has beauty in every curve, and nearly every one of his buildings has a curve in it somewhere, whether it is the undulating glass brick wall of the banking hall in the Boavista Bank, the church at Pampulha with its parabolic vaults, the Lebanese Club, or the Duchene factory at Sao Paulo.

Occasionally one feels that it is slightly overdone; on the open south side of the Ministry building he designed a theatre—two interlocking theatres, in fact—of deliberately contrasting shape, but one is irresistably reminded of a great frog squatting before a praying mantis.

Other architects also achieve this artistry of the flowing curve. Bologhna in his thermal baths at Araxha handles a partly enclosed and partly covered space in masterly fashion, while Reidy, Rio's City Architect, has, in designing the long sinuous Lansdowne Crescent form of his four-storey maisonnettes in his Pedregulho neighbourhood, brought off a brilliant *tour de force* on an awkward site.

A criticism of this longing for the exciting shape may be made when the façade is tilted back so as to create a right-angle with the one-way sloping roof. Here one feels that

Tiled mural decoration, Ministry of Education building. Artist : Candido Portinari.



Roof Garden of Government Insurance building, Rio. Architect : Burle Marx.

formalism has triumphed over the excellent functional basis which is the starting point of most of the designs.

Sun Control

Keeping the glare and heat of the sun out of buildings presents a challenging problem in most tropical countries, and the attempts of the Brazilians to integrate the resulting structural components into their designs are very praiseworthy. So far they have done it mainly by using variations of traditional methods, and the two most striking of these are undoubtedly the adjustable sun louvres and the pierced screen. The first has been used in its most scientific way in the Boavista Bank: on the north elevation (the side facing the sun in the southern hemisphere) is an egg-crate frame covering the façade to which are fitted adjustable wooden louvres controlled in threes by a small hand lever. On the west wall (another building adjoins on the east) is a similar frame, but the louvres turn on a vertical axis to reflect the glancing rays of the sun. The south wall is entirely of glass.

Other buildings which use the louvres in different ways are the A.B.I. building, which has wide fixed concrete fins, set at 45 deg to the façade, the block of flats of Copacabana by the Roberto brothers, the group of buildings at Pampulha, and the shops in the Pedregulho neighbourhood.

The pierced screen, commented on in Hawksworth's Voyages, is an excellent example of the way in which the Brazilians have incorporated an old and tried traditional element into their contemporary architecture. The screens are made either of wooden trellis, or of clay tile or concrete shapes made up into various patterns. The variety of pattern is great, and the effect can be enhanced by growing creepers through them.

External Finishes

One of the most exhilarating features about many of the buildings erected is that, unlike many of their European counterparts, they look better in reality than in photographs. This is because, although the main structure is usually R.C., the architects go to great lengths to face what they consider to be an unsuitable finishing material. Several types of stone are used, a stone saw often being introduced on the job to avoid a long carry for the extremely thin slabs, and the result gives a fine and satisfying quality to the buildings.

Other facing materials which have been strikingly successful are the traditional azuleijos, and mosaic. The latter can be made in a number of colours and textures, and is delivered to the site stuck face down on paper which is washed off after fixing. It is such an excellent and durable finish that it is difficult to see why it is not used in this country.

Synthesis of Arts

The Brazilian architects have brought the related arts into their buildings to an unusual degree and highly successful degree. A group of young artists, led by Portinari, have carried out large murals in a number of more famous buildings, and very good murals of mosaic and azuleijos have been used externally, the most famous of which is probably Portinari's azuleijo design for the church at Pampulha. Sculpture has proved to be more difficult, and has been the cause of at least one humorous incident, which may well be taken as a warning against false economy. The end wall of the Conference Hall of the Ministry building was destined to have a sculpture by Lipschitz, and he sent out a half-size model of his design for approval. Unfortunately an economy drive was in full swing and up went the model, and it is now hopelessly out of scale. It is, by the way, known irreverently to the Cariocas as the "chewing-gum."

Perhaps the greatest success has been achieved in the field of landscape design. Again an outstanding man appeared in the person of Burle Marx, whose gardens have an international reputation. When integrated with a good building both arts gain a great deal, and some of Burle Marx's roof gardens have to be seen to be believed, and enjoyed.

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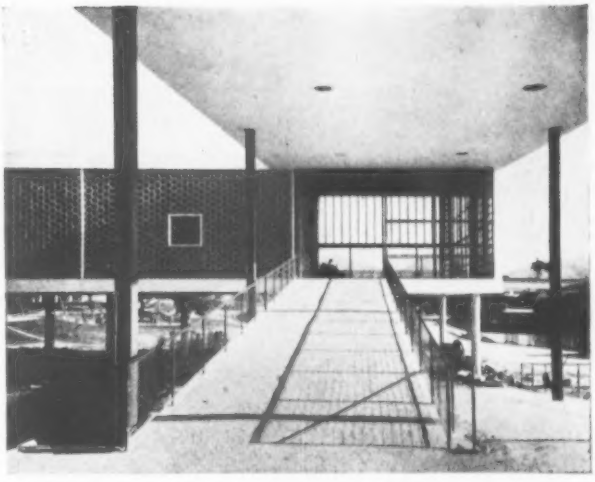
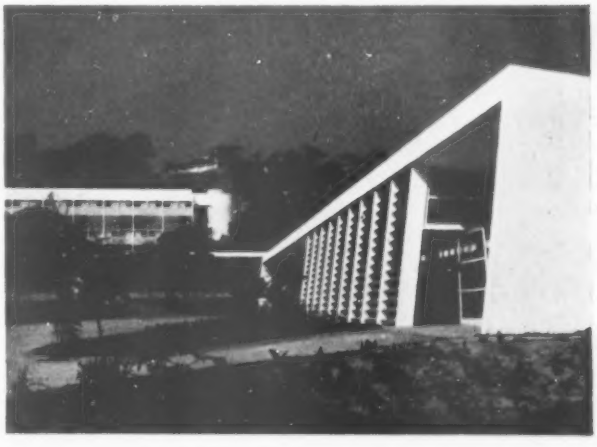
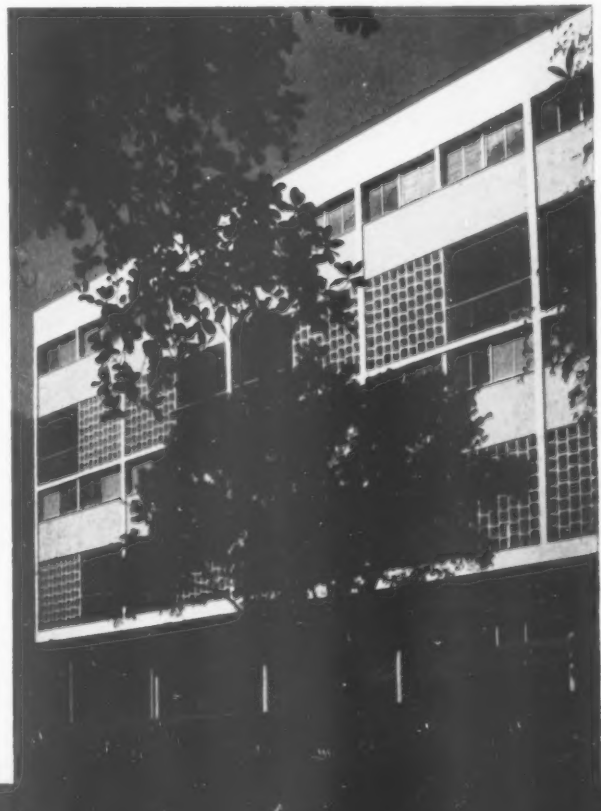
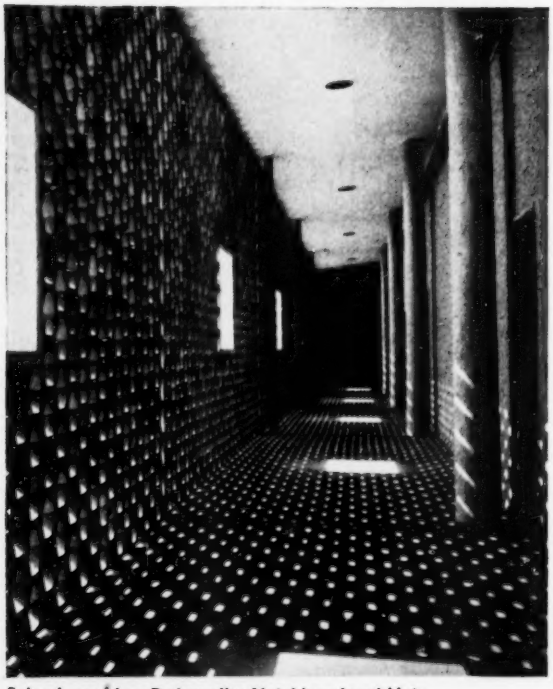


Pedregulho Neighbourhood Unit, Rio de Janeiro. Corridor and classroom, Primary School.



Pedregulho Neighbourhood Unit. Shops on the right with the clinic in the background. Beyond is the four-storey flat block shown in the picture below.





School corridor, Pedregulho Neighbourhood Unit.

Town Planning

It must be confessed that the younger Brazilian architects have not yet had the opportunity to carry out comprehensive city planning and control or to tackle seriously the terribly urgent problem of low-cost housing. Both Rio and Sao Paulo have grown chaotically and are well out of control, with unfortunate effects on some of the really good buildings. In Rio the worst results are overshadowed by the grand scale of the natural setting, but Sao Paulo shows how bad wild and uncontrolled speculative development can be.

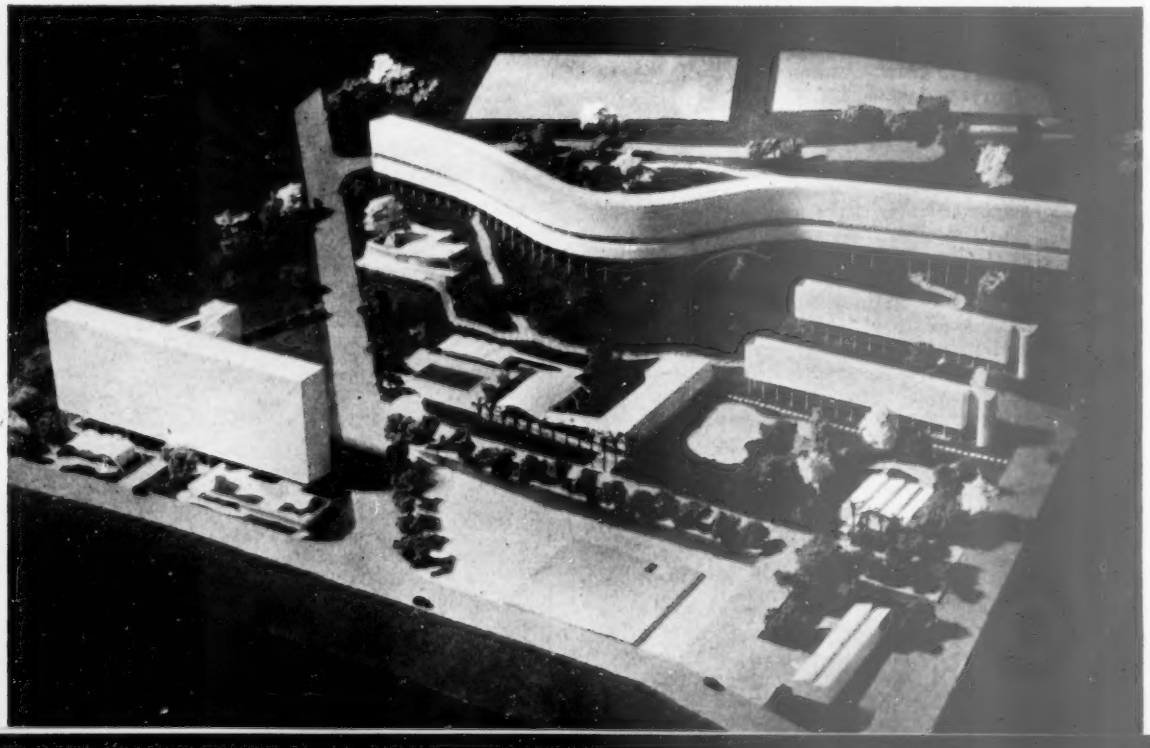
There are, however, one or two fine schemes which are a useful guide to what might be achieved in the future. In addition to the object lesson in central area development provided by the Ministry building, there are the San Antonio project and the Pedregulho neighbourhood. The latter is an excellent example of a residential group with attendant community facilities. It contains a high block of flats, the curving terrace of maisonettes previously referred to, two shorter maisonnette blocks, primary school, creche clinic, shops, club and gymnasium. The brilliant success with which Reidy has co-ordinated the whole scheme is self-evident, and the masterly disposition of the buildings on a difficult site, the judicious use of screens, azuleijos, mosaics and landscaping, all make this scheme a model of its kind.

Assessment

This eagerly awaited Exhibition contains a good representative selection of contemporary Brazilian buildings, including a number which are now of world fame. One's praise for this architecture of high fulfilment must be tempered by a few sobering thoughts. An exhibition of modern buildings of Britain held in the U.S.A. before the war gave quite a number of Americans the misleading impression that there were large numbers of such buildings, and that this way of building became the vernacular. Likewise, through no fault of the Brazilian architects their contribution is still small in both the number and types of buildings, and they are not yet out of the prototype stage. In fact, they have scarcely begun to tackle Brazil's most pressing problems of town planning and low-cost housing.

In spite of certain limitations, the Brazilian architects have undoubtedly made a brilliant and highly successful contribution at the international level, and yet one which remains essentially Brazilian in character. Their buildings begin by being for the most part good planning and technical solutions within the contexts of climate, client and building industry. Imagining in three dimensions all the time, they have exploited the possibilities of a comparatively new material in a bold and imaginative way. As if this were not enough, they have given to their contemporary architecture what it so often lacks in other parts of the world, a richness of colour and texture. Finally, they have brought in the artists and landscape designers to begin that synthesis of the arts which is one of our major objectives to-day. It is a contribution from which we can learn a great deal.

Model of Pedregulho Neighbourhood Unit. Architect—Affonso Reidy and associated architects and engineers. A long seven-storey block of flats follows the contour of the hill. On the left, in the foreground, is a ten-storey block of flats; in the centre is a primary school; to the right foreground the Co-operative shop and laundry. Behind is the health clinic and behind this again four-storey blocks of flats. To left in front of the long seven-storey block is a small club house.



LANGBOURNE L.C.C. PRIMARY SCHOOL,

Kingswood Drive, Dulwich

ROBERT MATTHEW, C.B.E., F.R.I.B.A.
Architect-to-the-Council

G. F. HORSFALL, M.B.E., A.R.I.B.A.
Architect-in-charge

BLOCK PLAN

LANGBOURNE Primary School, one of seventeen in the 1951-1952 schools programme of the L.C.C., containing junior and infants departments, each planned as a self-contained unit sharing the administration rooms and dining room.

The three-acre site is part of an L.C.C. estate, Kingswood Drive, Dulwich, which is nearing completion. The site falls thirty feet from S.E. to N.W. and made it necessary to plan on different levels. This has produced a feeling of informality and intimacy

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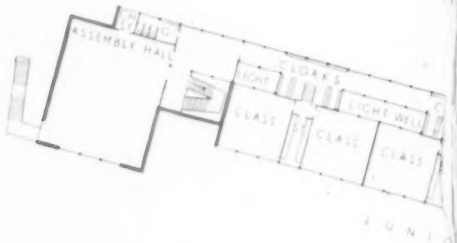
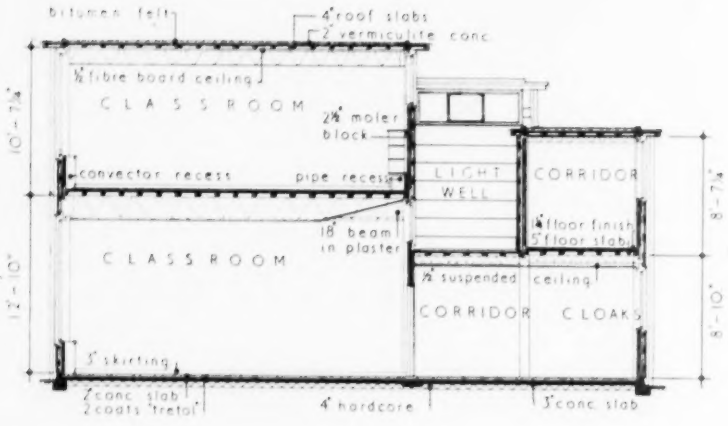
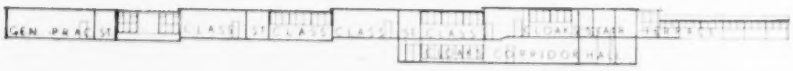
LANGBOURNE PRIMARY SCHOOL

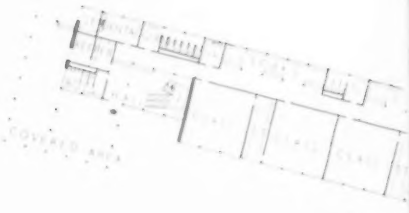




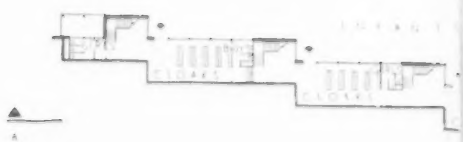
TYPICAL SECTION. SCALE: 1in = 12ft

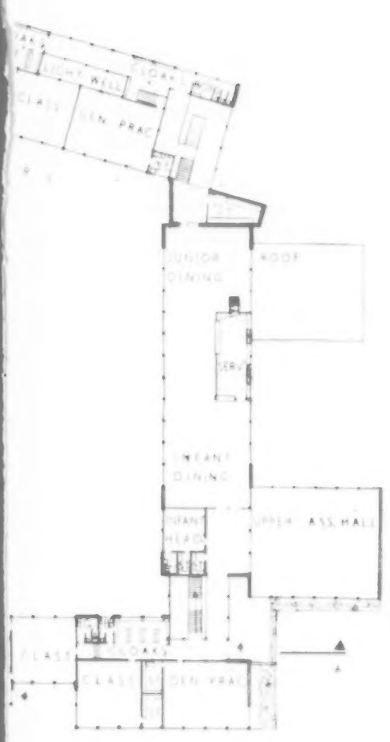


SECTION A.A. SCALE: 1in =

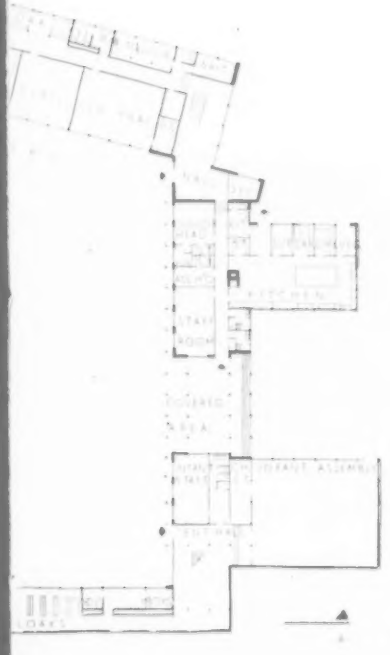


View of infants' wing from headmistress's study

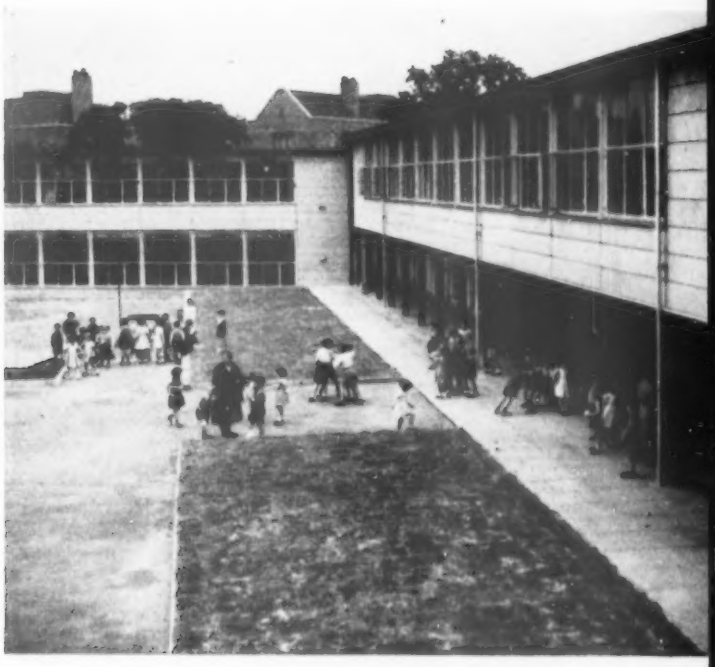




PLAN AT UPPER LEVEL. SCALE: 1in = 64ft



PLAN AT LOWER LEVEL. SCALE: 1in = 64ft



The dining block is on the right with covered play space under, entered from the infants' court

The children's playgrounds can be seen through the covered playground under the dining room

The main staircase at the East end of the junior wing.

of scale difficult to attain in schools of this size.

The site has been carefully landscaped with varying textures and patterned paving, every advantage has been taken of existing planting and the fall in the ground; a group of oak trees has been retained on the Eastern boundary to screen the school from the housing estate.

The construction of this school conforms with the sixteen others in the programme and is of light steel framework with precast infilling panels of concrete. Designed on an 8ft 3in grid, a high degree of standardization was attained in the drawing office which resulted in a more easily and quickly erected structure. Hills "Pressweld" stanchions with lattice beams and precast floors and roof form the main structure with white spar facing to the precast cladding or red and grey granite as an occasional contrast. There is a blue brick load-bearing structure as a planning link between junior and administrative wings. Pressed metal subframes and steel windows were used throughout. Classroom floors are finished with composition tiles, elsewhere are quarry tiles, terrazzo tiles and concrete paving; wood blocks used for halls and staff rooms; stairs are in terrazzo or grano. All walls are plastered; ceilings are of fibreboard.

The junior classrooms are in the form of a double storey block. The first floor classrooms are grouped in pairs with a small staircase and cloakroom space to each pair. The infants' classrooms are all at ground floor level, with open-air teaching spaces in the re-entrants. Cloakrooms are at lower ground floor level with a staircase to each classroom.

LANGBOURNE PRIMARY SCHOOL

Left to right: A typical junior classroom, one of the staff rooms, and part of the infants' cloakrooms on the lower ground floor.

General Contractor: Rush and Tompkins, Ltd. *Sub-Contractors:* Hills (West Bromwich), Ltd., *Steelwork, floors, roofs, cladding, pressed metal, windows, ironmongery.* Alan Milne, Ltd., *plastering.* Merchant Trading Co., Ltd., *suspended ceilings.* B. Finch & Co., Ltd., *sanitary goods and cloakroom fittings.* Comyn Ching, Ltd., *ironmongery.* Bayliss, Jones and Bayliss, Ltd., *fencing and gates.* William Briggs, Ltd., *tanking.* Permanite, Ltd., *roofing.* New Floor Installations, Ltd., *wood block floors.* Marriott and Price, Ltd., *terrazzo.* Marley Tile Co., Ltd., *composition tiles.* Semtex, Ltd. *composition tiles.* Nairns, Ltd., *linoleum.* The Lettering Centre, *plastic lettering.* Braithwaites, Ltd., *tank and tower.* Engineering Service Installations, Ltd., *heating installation.* Gerald Halton, *fabrics.* Line Bros., *wallpapers.* William Stewart & Co., Ltd., *electrical installation.*

Junior dining room.

The Assembly Hall is at a lower first floor level with covered playground beneath, the main junior entrance, with medical inspection and dental treatment rooms, is at ground floor level and contains the "Plankton" mural by Gerald Halton, from the Dome of Discovery. The infants' entrance has the "Marmalade Cat" mural by Kathleen Hale from the Schools Pavilion at the South Bank. A full use of colour has been made throughout the building. Exciting colours in the corridors, bright splashes in the classrooms and on locker doors. Three coats were used on all metal surfaces, such as doors and so on, walls had three coats of cement glaze in a semi-matt finish, whilst in the staffrooms hand-made wallpapers with selected fabrics and furniture ensure a uniform standard of design on a domestic scale.

Exterior from the S.-W.

Kumla Old Folks' Home, Örebro, Sweden

ARCHITECT: AKE E. LINDQVIST, S.A.R.

THE Old Folks' Home at Kumla near Örebro in Central Sweden was built to the prize-winning design of Arkitekt Ake E. Lindqvist, S.A.R., of Stockholm, who envisaged a home for 60 people where old folks of both sexes could live, with every amenity which could reasonably contribute to their happiness.

The site chosen, one partly covered with fir trees, was situated in the centre of the town of Örebro, immediately north of the Town Hall and Market Place, and the elevation was designed to blend with the buildings in the vicinity, some of which are small dwelling-houses. Consideration was also given to the fact that this site, near to the shops, the homes of friends, and the life of the town, would give the old folk a sense of continuing to belong to the community.

In this design the buildings consist of three blocks of 3, 2, and 1 storeys respectively, grouped round a central point where the main staircase and the lift are placed.

The purpose of the architect was to build an old folks' home with a sense of spaciousness and freedom, devoid of any suggestion of occupying a cell in an impersonal institution.

To this end the quarters were planned as small living units composed of 1-2 double rooms and 2-3 single rooms, and a dayroom, where those who had known each other for some time and wished to live near one another, could form a group or unit.

An effort was made to lend to each unit a homely atmosphere by limiting its size, and locating it so that it should receive the maximum possible daylight.

This has been accomplished by orienting the dayroom in each living unit in the opposite direction to the bedrooms.

The divisions have been effected by the use of recesses creating a desirable variation internally to the corridor. The dayrooms are intended not as " best " rooms, but to be used for recreational purposes. They are all provided with wind-shielded verandas.

The three-storey building A, embracing three living units to each 15 pensioners, faces east and west, and is in line with three-storey dwellings south of the site on Tradsgardgatan and the square.

The two- and one-storey buildings B and C, are in line with the north side of the site, facing Hoganasgatan, and they comprise, in the two-storey building, two living units, each for 8 pensioners, and in the one-storey building, the dining room and kitchens.

The low edifices harmonize with villas on the north side of Hoganasgatan.

This dividing up of a large building, and the introduction

of variety in style and material to the façade, has effected an harmonious blending and continuity with the neighbouring property. A special sick bay of about 10 beds can be arranged on the ground floor of the two-storeyed block, with a doctor's room.

Each group building is equipped with a kitchen containing a locker for each pensioner and a breakfast place for two persons, a lavatory and cloakroom, toilets for men and women, staff toilet, store room, bath etc., to each 15 people, There are four such groups.

There are in addition a nurse's room adjoining a cleaner's room, linen stores and other amenities. This is considered to be an arrangement favourable to efficient administration and interior economy.

The whole project is so arranged that a garden is formed to the west towards Badhusgatan and Jarnvagen, open to the south and west, with a further garden to the east and adjacent to woodland.

At the south-east corner of this latter garden the staff quarters with their own entrance are situated.

Immediately south of the site lie the town's hot baths and communal laundry, and by means of a simple operation, an extention of the boiler room in the baths was made to supply hot water to the home.

The office is located on the ground floor, in the entrance hall, where a visitor's cloakroom is also arranged, for those occasions when the large dayroom and dining room are made into one and used as a meeting hall. There are also two public telephones.

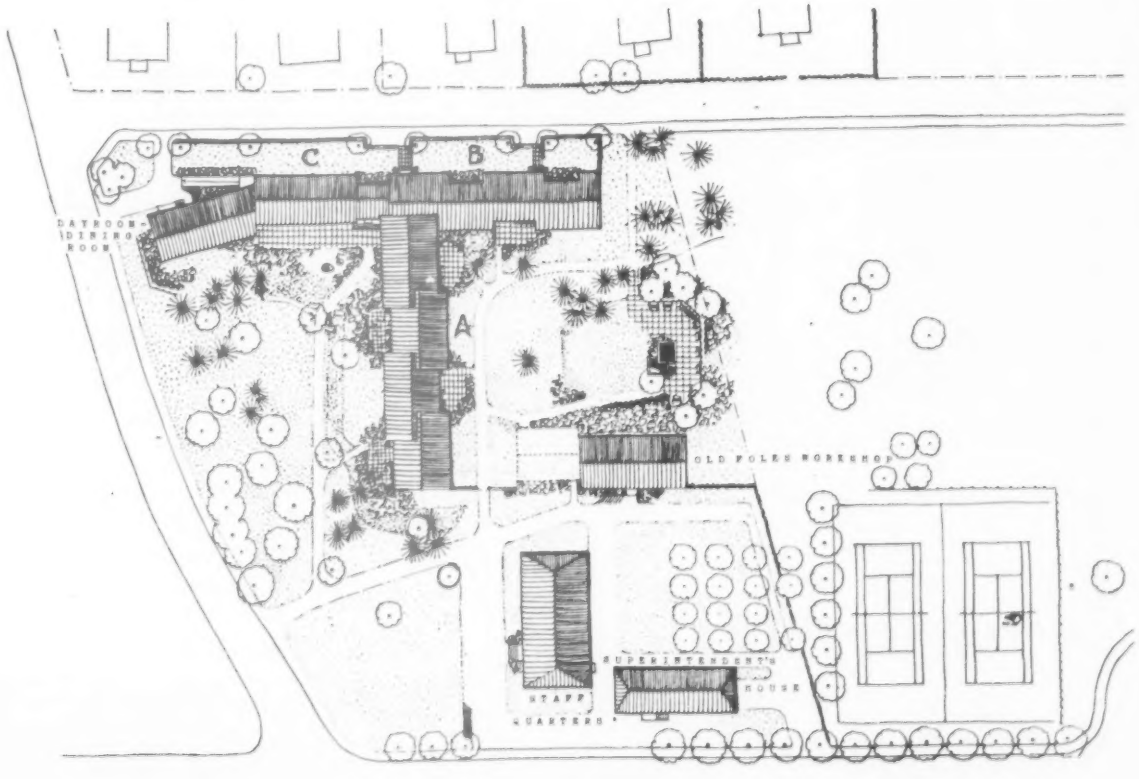
Here, too, is a lift, sufficiently large to take a stretcher, to all three floors.

There is also a board in the entrance hall with the names of each of the pensioners, as in an ordinary dwelling-house. In the same way, a name-plate and a door-bell is provided for each pensioner.

In the one-storeyed building near the main entrance, are a lending library and a sewing room for the repair of linen.

Near the staff quarters is a building intended for an

Detail of Pensioners' Quarters.



KUMLA OLD FOLKS' HOME

Plan of group living quarters

"Old Folks' Workshop." It is planned on two floors, the ground floor having a large area divided up into six smaller workshops, which can be locked, for shoe repairing, bookbinding, tailoring, paper-hanging, carpentry and painting.

The idea is that the elderly craftsmen should move in their tools and working outfits and be able to go there and and pursue their normal activities whenever they wish.

On the upper floor is a large room for weaving, embroidery, spinning, etc., for the womenfolk.

Lindqvist attached very great importance to this aspect of the home.

In the grounds also, are two large roofed-over loggias for the outdoor airing of bedclothes.

The carcase is of reinforced concrete. The cellar floors are insulated with blast furnace slag to a depth of 18cm.

Much use has been made of light-concrete blocks of 27.5cm thickness finished in Terrasite mortar externally. The recessed intermediate sections, the dayrooms, are also built in this type of light-concrete block, faced with vertical sawn wood panelling impregnated with Falun red paint. All the rooms are effectively sound-proofed.

All roofs are sheathed in double-lapped galvanized iron plate. For the walls of the entrance hall red facing bricks were used. The chimney is carried out in the same brick with a surround of concrete and wrought iron. The floor is laid with Eke-berg marble. The same material was chosen for the main staircase which leads from the entrance hall.

In addition to the main staircase there is a secondary staircase at the end of each pensioners' block.

In the corridors, corridor-dayrooms, and pensioners' rooms, the walls and ceilings are plastered. The ceilings are whitewashed and the walls in the corridors oil painted.

The walls of the dayrooms and the pensioners' rooms are papered with plain white paper.

In order to provide a fresh and comfortable atmosphere, a simple form of air-conditioning is installed.

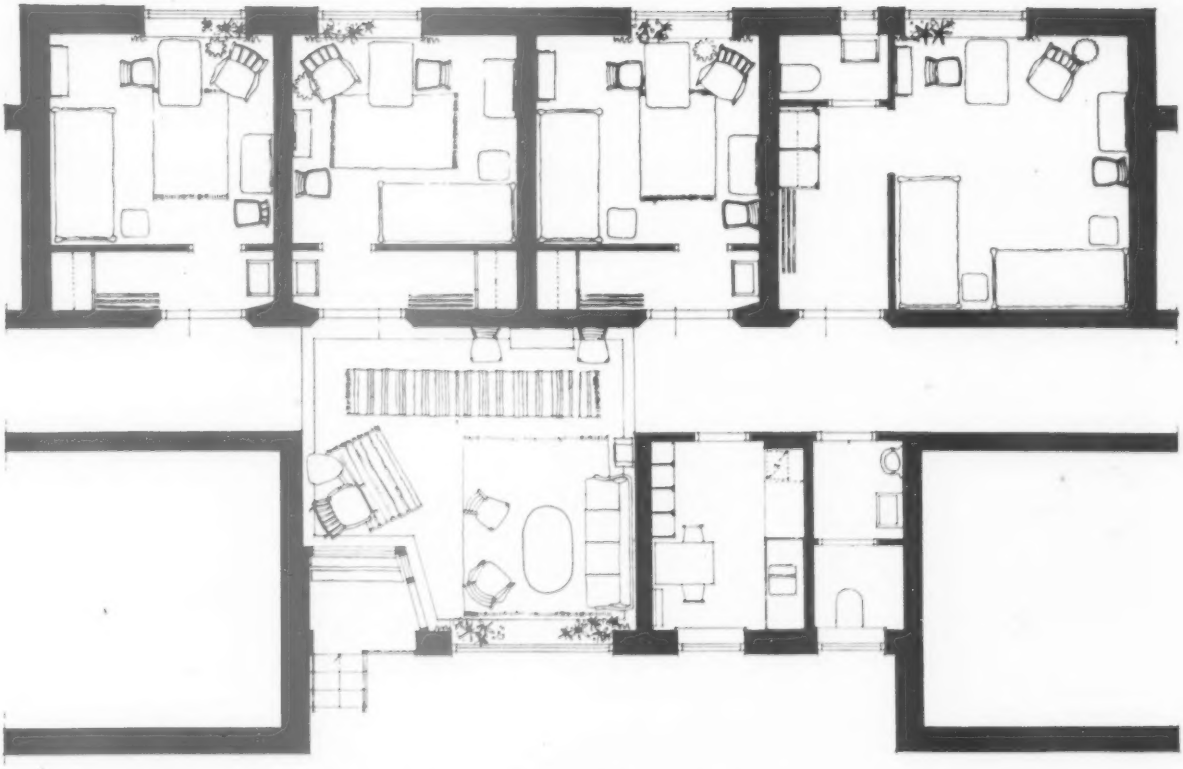
Warmed fresh air is blown in at three points in the corridors. To maintain the effectiveness of the sound insulation between the corridor and the pensioners' rooms, which with its single brick thickness is of high quality, the warm air is conducted in at the top of the built-in wardrobe in each room, thence it passes down through the wardrobe and out under the door into the room, whence it it is withdrawn by the normal ventilator.

The floors of the pensioners' rooms are insulated with Treetong and laid with standard linoleum. In the corridors the floors are steel polished and laid with 3.5mm thick English linoleum of the best quality. The floors in the corridor-dayrooms are laid with oak parquet.

The largest room in the home, the meeting hall, which is contrived by combining the large dayroom with the dining-room, is on the ground-floor, with direct access from the entrance hall. The dayroom can be separated from the dining-room by means of folding doors, and the dining-room in turn can be divided up into two small dining-rooms by using a further folding door. The ceiling in the day-room-dining-room is of natural pinewood which has been acidified with lime and brushed vigorously with a Mexican fibre brush. The walls are plastered and painted, and the floor is laid with a dark red linoleum covering, which tones well with the green gable walls and folding doors, and the rather darker green painted chairs.

A large store is situated in the basement, together with room for soiled linen, a small laundry with a mangle, ironing- and drying-room, store-room for the pensioners' belongings, and a couple of large rooms for storing furniture where the standard furniture can be kept if the pensioners wish to have their own furniture in their room.

A dayroom to a small living unit



Plan of a small living unit with complementary dayroom. Pictures overleaf

The dining-dayroom

The kitchen

KUMLA OLD FOLKS' HOME

Details and photographs by courtesy of Arkitekt Ake E. Lindqvist S.A.R., Stockholm.

OPINION

BEARDS AND PREMISES — TRUE AND FALSE

WHEN one was very young, one was told to "leave something for manners" on the plate or in the cup. Even at that age, it seemed rather silly —and a poor compliment to cook or parent. It was not long before one observed that the injunction came from nursemaid rather than from cook or parent, and one politely ignored it.

Later (but before the roaring twenties made it a social accomplishment) one learned that it was rude to belch—unless one were in the Orient, where it was rude not to. Later again, after having one's manners compared unfavourably by travelled aunts with those of the Continent, one had one's first experience of polished young Latins reducing cake-stands to fragments in their efforts to open doors for ladies who were already halfway through them. One learned that it is sometimes more polite to remain firmly chairborne.

In short, the whole subject of "manners" seemed to call for realistic reassessment, and realization came that they held, in military parlance, purely temporary and local rank in the scheme of things. Also, that they couldn't be learnt out of a book, and that there was in fact no effective substitute for natural consideration for the feelings of others as a basis. Much later came the knowledge that these natural, as opposed to acquired, manners had as little to do with etiquette as, say, tact with diplomacy, or good nature with charm—the latter alternative in each case being as it were the ritual or outward form, the grin (or rather the polite social smirk) without the cat.

So we grow up, and learn to "be our age," and to be ourselves, for better or worse. We also learn, if we are architects, that there is also no substitute for the real thing and that good architectural manners are simply the æsthetics of the job in the literal sense, i.e., that "the study of what has to do with the feelings or emotions" includes the other fellow's feelings as well as one's own.

All this is trite and a little pious. We avoid referring to it, like the word "gentleman" in the company of gentlemen. But there is a less reassuring converse. In observing this possible self-righteous philosophy, we tend to take for granted that "bad manners" are invariably the other fellow's, in the same way that his convictions are "prejudices." This offers a double-edged weapon. For since it is more embarrassing to be accused of bad manners than bad ethics or bad morals (at least in polite society) the accusation is a very powerful sanction when we do not like somebody else's behaviour or, architecturally speaking, his work—and, unfortunately, vice versa. In irresponsible hands this double-edged weapon can become dangerous as well as inconvenient. In art, the philistine, having no valid critical standards, not infrequently changes the subject adroitly, and condemns, not the work, but the artist on grounds of (a) improvidence, pleading alternatively (b) moral turpitude. The artist is thus made clearly a social failure, even if he remains obstinately an artistic success with everybody except the philistine!

In architecture, "Bad Manners" (hereinafter referred to as A.B.M., since abbreviations are the order of the day, and there is good precedent in advertising) is an analogous convenient change of subject. The ruse is only new extra-professionally and it is only there that the danger lies. The subject was ably explored many years ago by Mr. Tristan Edwards, and by others since: recently, at the R.I.B.A. Conference, the President Mr. Howard Robertson had timely, wise and pertinent things to say about A.B.M.—amongst them that "there is no guarantee for success" (and he was not speaking of material success) "except awareness, sensitiveness, unselfishness."

These, again, are natural qualities—you have them, or you haven't. These are informed and respected opinions: architects will understand them as the best judges of good manners in architecture. But so long as the profession confines to itself the knowledge that A.B.M. are simply a breach of natural, civilized behaviour and therefore—if the equation suggested earlier be accepted—of æsthetics, they will be the only judges—and this is to be regretted.

The public misconceptions on this score are becoming increasingly serious, and call attention to the urgent need for public enlightenment. For they are simply another aspect of public ignorance about contemporary architecture and architects, and what they are about. Meantime, the layman may be conscious of, and embarrassed by, an atmosphere in which a gaffe has been committed: but by the nature of things he remains ignorant both of how things went wrong in the first place and, in constructive terms, how they can be put right or avoided in future. Feeling called upon to join in the hurly-burly, however, what a godsend, therefore, is A.B.M. to the layman, who can thus join with enthusiasm in the business of washing professional linen in public! But how off-target is his new weapon!

Nowhere does the A.B.M. formula come more prominently into use to-day than when a new building is to be fitted into a context endeared more by familiarity than by genuine personal regard. One of the most piquant phenomena is the passion we develop for historic buildings or places when they are "threatened" by development, whether good or bad. Respect for a past which we have assiduously neglected or marred by advertisement hoardings and petrol-pumps, overwhelms us until there is hardly a dry eye in the house. Are these crocodile tears? How soundly is this based on genuine respect—on good manners?

All too seldom, one fears. The motives, rather, are distrust and fear of the present. We, as architects, know that the only well-mannered architecture is that which, in all sincerity and with both æsthetic sensitiveness and technical competence, seeks to build as best we know how to-day, with the best methods and materials available to us: in other words, to be ourselves, and to be our age. The good manners—the æsthetics—emerge from this. They are apparent to us. They will receive public acceptance only through familiarity.

How dismally we have failed to make this our case. How tragic that the layman still thinks that to "respect" the past means to caricature it. And how painfully all this is brought home in relation to the Bucklersbury affair! We have become inured to hearing the right things condemned for the wrong reasons in artistic matters. But there can have been few situations of more bitter irony than this—that in the general uneasiness, the loudest salvoes in the battle are over the entirely false premise that the proposed building is objectionable as being "traditional," the truth being that it is not traditional enough in that the Georgians would have built a "modern" one!

With the honourable exception of a leading article in *The Times*, which cannot be too highly praised for its moderation, incisiveness and good sense, apparently no steps have been taken to make this clear, and to emphasize that those very same architectural good manners which have been so vociferously and imprudently invoked, do not consist of inflating the "Georgian style" into a multi-storeyed caraciture of itself: that the shape "cut out in the sky" is as important as that on the ground: that superficials of "dress" or "accent" cannot in themselves make a newcomer acceptable or congenial to the society, architectural or human, into which he is to fit.

Quite simply, respect for one's elders can by no stretch of manners, either natural or acquired, be shown by putting on a false beard and an assumed dress in order to consort with them. If it were so, architecture would be at a standstill. If this ill-directed weapon's use is extended, it will be.

BASIL MARRIOTT

Aluminium in Building

A REPORT ON THE SYMPOSIUM ORGANIZED BY THE ALUMINIUM DEVELOPMENT ASSOCIATION AND HELD ON 30th JUNE

THIS Symposium was arranged with two objects in view. First to place before architects, builders and owners a summary of the position reached in the development and use of aluminium in buildings of all kinds, and secondly, to provide an opportunity for an exchange of ideas and opinions at a representative gathering of the building industry and the aluminium industry.

Three papers were presented, and these were pre-printed for the study of guests to encourage informed and provocative discussion. The information given in the papers was supplemented by an Exhibition in which the latest developments were shown with examples of aluminium in service.

In the first paper of the day, Professor Robert H. Matthew gave what he described as "An Architect's Appraisal of Aluminium in Building." In his paper, Professor Matthew described and illustrated examples of the more prominent uses to which aluminium alloys had been put in buildings. He drew attention to the fact that in its earlier uses, the metal is practically indistinguishable from other metals and that only in the last few years had the characteristics of the new material become articulate in building.

The tendency to use this new material as a substitute for other materials appears in fact to have retarded the development of its full potential in structural as well as the decorative field of building, but promising new activity in the field of design is expected to show good results very soon. Professor Matthew gave examples of some remarkable structures now coming from the skill of designers including the 42 foot space frame designed by Ove Arup which can be lifted by two men. He also described the handling of the 72 foot long sheet of corrugated aluminium laid to a low parabolic curve of 280 feet span to illustrate the potentialities for design.

Professor Matthew suggested that the development of the use of aluminium for structural purposes has been considerably assisted by the experience of its use in other fields. When discussing the progress so far made in the field of prefabrication in buildings, he showed that experience in the design of highly specialized aircraft had not in fact made the contribution that might have been hoped for, but that this may have been due to the relatively unimportant contribution so far made by the architect.

To achieve the fuller potentialities of aluminium for prefabrication in building, Professor Matthew sees great promise in the works of the design team in the Ministry of Education. He bases his hopes on the abandonment of the conception of the whole building unit and in its place a concentration on the manufacture of relatively small, flexible components; the combination of modular sizing with good planning, and the technical solution of the completely flat roof.

In summarizing current problems and the future, Professor Matthew said that in the last few years a great deal of knowledge has become available, and a good deal of experience in building has taken place. He indicated however that the architect had still to discover many things about the use of aluminium in association with other materials, and he had to develop methods by which the limitations of the material in performance may be compensated by design and constructional technique.

This paper was followed by vigorous and objective discussion and whereas it seemed to be generally agreed that aluminium has a most important contribution to make in buildings, there remain many gaps between what is known of the properties of the material, and its proper use in buildings.

Architects generally showed some concern for the dangers of corrosion and electrolytic action arising from the association with other materials in buildings, and particularly when subjected to the conditions of exposure. Some anxiety was also expressed on such matters as the resistance of aluminium to fire, and the problems of surface glare when used in sunny climates as an external cladding. Reassurances were given on the restrictive effect of building legislation to the fuller use of aluminium in building, but it is to be hoped that the questions and problems raised at the discussion will be more convincingly and helpfully answered in the written replies promised by the Chairman.

The second paper was presented by Mr. G. H. Friese-Greene, on the subject of "Aluminium and Craftsmen in Building." He developed his thesis on the contribution that craftsmanship must make in the fuller development of aluminium in building technique with earnestness and finesse. Discussion added very little to what was contributed in the paper but drew special emphasis on the importance of the effects of exposure, and the need for care in the arrangement and construction of joints in finished work. Many interesting examples of craftsmanship were illustrated.

The paper presented by Mr. E. G. West during the afternoon session was entitled "Aluminium for Roofing and Cladding." This paper introduced more precise instructions on the properties and uses of aluminium than previous papers, and such discussion as followed dealt mainly with overall aspects of the subject. It was suggested, however, that in developing products for use in buildings, manufacturers should take note of the possibilities for dimensional co-ordination now being strenuously examined by architects, engineers and others interested in the design and construction of buildings.

The following is an extract from Mr. West's paper showing some of the methods and results so far achieved in the use of aluminium as a fully supported roof covering:—

"The aluminium fully supported roof has been the subject of considerable investigation, and it has been found possible to adopt many of the standard practices applied to other metals in use for this purpose. Detailed recommendations form the subject of a new publication by the Association, and it is hoped that this will form a satisfactory basis for a Code of Practice in due course.

For plain fully supported roof covering, the technique of laying which has been generally adopted in this country follows the traditional systems of jointing known as (a) the standing seam and (b) the wood rolls of square or conical sections. Simple or double lock cross-welts are used for the transverse joints. Where the pitch of the roof is greater than 60 deg a simple lock cross-welted seam is used, and where the pitch is less than 60 deg a double lock cross-welted seam is recommended.

Aluminium is used in flat sheet or coiled strip to compositions S1A, S1B, S1C, NS3 and NS4, all in the soft condition. The gauges generally recommended are: 22, 20 and 18 S.W.G. Coiled strip is generally used to its maximum width of 2ft, and sheet up to a maximum width of 2ft. Where the slope or pitch of the roof is designed to a fall of less than 10 deg, it is usual to provide transverse drips spaced between 10ft to 15ft centres to accelerate the run-off of water.

The use of aluminium as a roofing material for permanent buildings is not entirely new for, as noted in Professor Matthew's paper, some early roofs date back over 50 years.

A recent example is Sunbury-on-Thames Council Housing Estate at Shepperton (architects: Basil Spence and Partners; sub-contractor for roof: Hugh Twaddle and Son, Ltd.), where an excellent application of fully supported flat aluminium sheet system has been installed. A 2ft wide, 22 S.W.G. strip of aluminium is laid on ¼in composite board over 2in × 1in wooden battens at 2ft centres on 5in × 2in rafters at 3ft centres, with a flat type of expansion joint on a roof pitch of 20 deg—thus effecting a considerable saving of timber and other traditional materials, made possible by the lightness of the metal.

Another notable example of the fully supported flat aluminium sheet roof covering is the new primary school at

Kingsworthy, Winchester, the roof of which, using almost two tons of 22 S.W.G. sheet, super purity aluminium, and covering a total area of some 7,550ft, is the largest installation of its kind.

Perhaps the most widely used form of aluminium at present is the corrugated sheet, especially for roofing industrial and agricultural buildings, where the lightness, high strength, durability, high reflectivity and low emissivity of the material—ensuring relatively even temperatures for internal working conditions—may be more readily appreciated by the user.

Evidence of the high durability of the metal under severe corrosive industrial conditions was seen in a boiler house in Warrington, Lancs, which was covered with ordinary, unprotected corrugated aluminium sheet in 1932. Although subjected to continual exposure to sulphurous fumes and steam, no maintenance has been necessary, and after a period of nearly 20 years, the roof is still in perfect condition and completely water-tight.

A great deal of attention has recently been devoted to corrugated sheet systems, under two main types: (a) Industrial corrugated sheets for application to industrial and agricultural buildings; (b) general purpose corrugated sheets for more general building use."

GEORGE FAIRWEATHER, F.R.I.B.A.

News continued from page 33.

local authorities to consult the Minister's Principal Regional Officers on the schemes of conversion or adaptation specified in paragraph 8 of Circular 40/48, which is now withdrawn. They are asked, however, to ensure that these schemes are carried out with proper regard for the economy memoranda on scarce materials of which the Council have had copies, so that the greatest number of new units of accommodation can be provided from the resources available.

Building Materials Production

Mr. Hugh Molson, M.P., Parliamentary Secretary to the Ministry of Works, speaking at the National Council of Building Materials Producers' luncheon in London on Tuesday, June 30, congratulated the industry on its achievement. The experience of the last fifteen months fully vindicated the Government's policy of setting the building industry free to get on with its work, he said. Production of cement in 1952 exceeded that of 1951 by 9.8 per cent, or 900,000 tons; production of bricks went up by 9 per cent, representing an additional 542 million bricks.

Building had gone ahead in a remarkable way. Over 69,000 houses were completed in the first quarter of the present year and 294,000 were under construction at the end of that quarter. In addition, productive industry was being granted licences freely, defence work was at a high level and licensing limits had been greatly relaxed. With a large programme of work before them masters and men in the building industry had increased production beyond expectation.

Mr. Molson continued: This success in increasing construction has, however, presented you with a difficult problem. Consumption of cement by the building industry is well above that of last year. 330,000 tons more cement were delivered at home in the first five months of the year than in the same period of 1952—an increase of 9 per cent. Bricks are now scarce in most parts of the country, but I want to congratulate you all upon the steady and substantial increase in your production. The increase in cement production this year over last year, despite the serious setback caused by the East Coast floods, is expected to be 3.6 per cent, or 400,000 tons. The production of bricks had already gone up by 187 million, or 7 per cent, at the end of May. Tiles are not plentiful, but in the case of all other building materials there has so far been no shortage. That this should be so is proof of the vigour and vitality of your industries.

Although there have been increases in costs, your prices have not increased despite—or shall I say because of?—the removal of price control. In the case of cement there was a drop in price; a subsequent increase in costs due to the increased cost of coal was absorbed by the industry itself. Since decontrol the price index of building materials has fallen by 3 or 4 per cent. The Minister's policy in doing away with price control has therefore been justified.

Social Facilities in New Towns

The following is the text of a Resolution unanimously passed at a meeting of voluntary organizations in new towns, held at the Planning Centre, 28, King Street, London, W.C.2, on Saturday, June 20, 1953. RESOLUTION:

"That this meeting of representatives of voluntary organizations in new towns stresses the urgent necessity for the provision of adequate facilities for social and community activities and recreation in the new towns in a way which will not place an undue financial burden on the newly-formed communities. This meeting is of the opinion that this should be done by modifying the administration of the Physical Training and Recreation Act, 1937, so that 75 per cent grants can be made for the establishment of social and community buildings and playing fields in new towns; and, permitting Development Corporations to operate the Act without having to show a financial return on their expenditure. The local education authority should be encouraged to support applications and to use the power given to them by the Education Act, 1944, to assist in the maintenanc of facilities provided in such a way. It should be made clear to local authorities that it is open to a housing Authority to operate this Act."

IN PARLIAMENT

Historic Houses

Sir David Eccles, Minister of Works, presenting the Historic Houses and Ancient Monuments Bill on July 3, emphasized that the machinery it would establish could be used as a pilot plant for much larger operations when more money became available. For the first time there was to be power to assist inhabited houses. In view of the uncertainty about the number of houses that might be for sale it was probably as well that the sum available for the purchase of buildings and chattels was limited to £500,000 over the next five years. This capital sum, which came from the Land Fund, would attract those who wanted to sell properties difficult to manage. Every time a purchase was made part of the £250,000 annual grant for maintenance would have to be earmarked, and there would therefore be less for inhabited houses. The annual maintenance figure was widely held to be insufficient but the Chancellor of the Exchequer was prepared to look at the figure again after a year.

Taste in works of art swung to and fro in the most violent way. What was praised in one generation was condemned out of hand in another. He hoped that the councils would aim at preserving the best examples of style in big and small houses. some in towns and some in the country. The main purpose of the Bill was to preserve for future generations the gems of domestic architecture in a state which would show them to the best advantage. It was his intention to establish a central agency where private persons and public bodies could obtain information about houses for which a new use had to be found.

The Bill was welcomed on behalf of the National Trust by Mr. Kenneth Robinson, and accepted as only half-a-loaf, if that, by Mr. Colegate.

Mr. Grimond suggested that among the new uses for these houses might be their occupation as schools for architects, artists and craftsmen. He did not want to see the country dotted with museums. Mr. Goronwy Roberts urged the need for quick action to counter the activities of merchants who were acquiring fine houses all over the country for their timber, lead, panelling, and other materials.

Mr. Dalton told the House that in the Bill the Labour Government was preparing there would have been a proposal for a straight transfer from the Ministry of Housing and Local Government to the Ministry of Works of the functions of listing historic houses and issuing preservation orders. It would assist in working the scheme if all the administration could be kept in one department, and he regretted that had not been done.

Mr. Molson, the Parliamentary Secretary, in his reply, assured Mr. Dalton that there was close administrative co-operation between the departments, and although the machinery might appear cumbrous it was, in fact, working satisfactorily. He made the point that the Bill was widely drawn and referred to historic "buildings," not "houses" only. It was intended that the Historic Buildings Council should be of the highest standing and independence. There would not be formal consultation with the national societies about its membership, which would not be on a representative basis, but since the Ministry was anxious for the fullest co-operation from these societies they would not go unnecessarily against the feelings of the societies. As far as possible owners would be free to employ their own architects, contractors and estate labour, but since this was public money for which the Minister would be responsible to Parliament, there would be some supervision.

The Bill was read a second time.

Money for New Towns

The New Towns Bill, to authorize a further expenditure of £50 millions on the new towns—bringing the total authorized to £150 millions—secured a second reading by general agreement on June 30.

This debate in the Commons traversed much of the ground covered by the Lords the previous week. Mr. Marples, Parliamentary Secretary to the Ministry of Housing and Local Government, broke down the expenditure figures into greater detail, stating that in all, the Government had already sanctioned £100 millions, were committed by contracts to £87,500,000 and had already spent £55 millions of that, and by the summer of 1954 would have spent £100 millions. The additional £50 millions authorized by the present Bill was being asked for somewhat earlier than had been expected this year because the accelerating rhythm in house building had meant increased spending. He denied the charges that in the new towns low density planning was wasting valuable land, and said that as a whole, planning was proceeding on the basis of at least 13 houses to the acre and in many cases the current proposals were more than that. It might be said that in the early stages of the new towns, designing and construction was on a rather extravagant basis, but that could no longer be said.

He acknowledged that the flow of industry into the new towns was not satisfactory, except in two places, and issued a strong appeal to industrialists to investigate the advantages that might accrue to them in the new towns. Available sites were now serviced, and factory building could proceed at an increasing rate. He added to this an appeal for commercial offices as a factor in securing balanced communities, saying that if the economic recovery continued the Government intended to drive forward with their plans for inducing industrialists and commercial undertakings to take their head offices to the new towns and away from the congestion of London and the conurbations that the new towns were designed to relieve. On the question of more new towns, he repeated that the Government's policy was first to make a good job of the existing ones, and, secondly, to develop the alternative of the "expanded" town. Officials of the L.C.C. had told him that they had the greatest hopes of the "expanded" town, and were conducting negotiations in many places.

Mr. Lindgren, who held a post in the Labour Government corresponding to that of Mr. Marples, commenting on the level of costs and rents in the new towns, said that these included factors which a local authority would carry in other ways. Many of the costs which a development corporation had to carry, such as street lighting, roads, parks and open spaces, ought to be taken off the rents which a development corporation must charge, and the New Towns Act should be amended to make this possible. He saw little to be proud of in the increasing housing density of which Mr. Marples had spoken. Before the war efforts were directed to reducing densities to 10 and 12 to the acre, and he hoped the Government would abandon the present urge to increase them, which would only result in future difficulties.

Mr. Sparks criticized as fantastic and reactionary the building of flats, including multi-storeyed flats, in the new towns and elsewhere, which he said Mr. Macmillan was advocating. It was, in his view, merely repeating in the new towns the congestion and lack of light and air that was causing such difficulties in the old towns. Mr. Thornton-Kemsley spoke of the need for amenity building to keep pace with the growing populations in the new towns. The new inhabitants had displayed ingenuity and resource, but that was not enough. The new towns were a national conception, and a proportion of the funds available for their growth ought to be used for the establishment of their social life. Mr. John Taylor entered a complaint that the standard of houses had suffered in the past year. He was inclined to attribute this to the incentive system encouraging shoddy work, and—with an admission that he might be on dangerous ground—suggested that when building operatives were reluctant to occupy the houses they were building, because they thought the standards were not good enough, there was reason for serious investigation.

Mr. Finlay saw the new towns as offering a great chance which architects had been ready to seize. At Harlow there were excellent illustrations of modern development. Some had followed traditional lines, others had adopted modern conceptions. But there were, too, some extremely bad things, which resembled nothing more than squat garages, and he hoped that kind of freakish architectural development would not be given too much sway. There was also some evidence of shoddiness. Speaking particularly of the need to attract the middle-income groups to the new towns, he criticized the Harlow Development Corporation's proposal to sell 999-year leases, instead of freeholds, and also suggested the possibility of prospective purchasers being able to select their own designs and employ their own architects and builders.

Commander T. D. Galbraith, Under-Sec. for Scotland, made the concluding speech, and repudiated the idea that it was the Government's aim to increase the density to 16 houses to the acre. The present density was about 13 to the acre, which compared favourably with modern urban development. On the point that had been made about higher rents he said there were counter-balancing factors that ought to be taken into account, including the reduced expenditure on fares between home and work, and maintained—against some contradiction—that there was no evidence that people were not willing to pay for the better amenities and facilities in the new towns, for there were still more applicants than there were houses.

Creating Tradition

From new houses the Ministry of Housing and Local Government has turned to new phraseology. A fortnight ago it was recorded here, with some misgiving but on the authority of the Parliamentary Secretary, that the Minister had settled prices for several types of "new tradition" houses. This exercise in phrasemaking has since attracted attention. Mr. Hurd asked the Minister, on June 30, at what stage between planning and completion a house became a "new tradition" house in the Department's definition. Mr. Marples gave the answer. It was this: "Houses, like skirts, acquire the old or the new look at the drawing-board stage." Mr. Hurd asked Mr. Marples to tell M.P.s at what stage in the Department's parlance a "non-traditional" house became a "new tradition" house, and at what stage a "new tradition" house became a "traditional" house? Mr. Marples: "A 'new traditional' house is the new name for a 'non-traditional house'."

Perhaps in the next Parliament it will have become a historic building.

Timber

AS I have not written about timber for a long time, except to comment on the official memorandum on Timber Economy issued about six months ago, it occurred to me that I might raise my voice to the many in other spheres of the press to express the hope that since the Government has lately appeared in a slightly more generous mood it might give further consideration to relaxations of the restrictions in the use of softwood. The Government keeps demanding a reduction in building costs, so I find myself constantly at a loss to understand why we cannot have more of a material which, I am quite sure, would aid the cutting of building costs. Softwood is about six times as costly as in the prewar period, but none the less I am convinced that it is still more economic in use than are many other materials if the users will give it greater, or let us say proper, design consideration. There is no doubt that timber was, in the past, used very wastefully and to a measure is still applied with quite unnecessary extravagance in some quarters; for example, on a recent visit to Scotland I saw internal doors made from 2½in thick timber being hung to 6in × 2in posts in a housing scheme. I suggested that there would be economy in following B.S. 459 for panelled doors and B.S. 1567 for the frames, but my suggestion was received with an expression of horror as it was said that anyone who would contemplate using doors 1⅜in or 1¾in thick and linings of only ⅞in thick could not expect them to survive one day's occupation of a house. I explained that I knew of doors and linings of these scantlings which had, to my knowledge, survived 40 years in housing conditions, but I fear I cut no ice at all.

Through the issue of the many timber economy directives and memoranda supported by T.D.A. literature, there is no doubt that timber is now being used less wastefully, and I feel sure that these more scientific applications would continue even if supplies of softwood were to be increased or even to be unlimited as the price alone would make designers much more careful than they were before the war.

I have heard many complaints in regard to the quality of softwood now available but, as in most fields, it is my firm belief that the quality you get is merely that represented by the price you are willing to pay. I have in the last year seen plenty of excellent quality material in timber merchants' stocks. Furthermore, if it is so ordered or specified by the user it can be delivered without difficulty at the moisture content suitable for each particular application; this may cost money, but there is little doubt that it is worth while as a means of reducing maintenance. Poor quality timber reaches our building jobs largely because those whose job it is to inspect do not insist sufficiently often on obtaining the quality timber they have ordered or, alternatively, the specifications are insufficiently precise and leave room for the supply of indifferent grades of material. There are a number of B.S. which set down fairly exactly the requirements for quality of timber to be used, very frequently in relation to B.S. 1186, and these may well serve as guidance for a specification even when articles are not otherwise required to comply with the requirements of a B.S. For structural use of timber we now have available Code of Practice CP.112 to serve as guidance on how to design and use timber economically. To take full advantage of this Code it is very desirable that merchants should show greater willingness to supply stress-graded timber which may also involve cutting to size, as the grading may change due to the process of cutting, as this may remove defects.

There is also a very serious need to appreciate the importance of moisture content and preservative treatments for timber, an increase in use of the latter might well show very considerable economies in maintenance. Kilning facilities seem still to be insufficient, and some buyers are unwilling to pay the cost. Also among the smaller builders and joinery makers there still seems to be a too ready acceptance of the fact that timber must be expected to shrink which proper selection of timber and proper moisture content will avoid or at least reduce.

I can think of no single step which the Government could take to aid the output and economies of our industry than to permit a greater use of softwood.

The shortages and prohibited uses of timber have caused the development of many substitutes; some of these developments will, no doubt, have a future, but as they are mostly of recent origin there probably has not yet been sufficient time to evaluate their use in service to find out such factors as endurance and cost of maintenance for comparison with similar traditional timber products. I believe it is often forgotten that timber is very adaptable, easy to work and can be formed to special shapes and constructions without elaborate machinery. There are also so many occasions in which a small piece of timber can save a great deal of work in alternative materials. Above all, timber has a pleasantness in appearance and in handling which few other materials possess. Some parts of houses, for example, ground floors, strike me as being very much less costly in timber than if they are made in some of the alternative materials. I have not yet been convinced that it is in the national interest to make housing more costly than necessary, in addition there is the fact that, again taking floors as an example, house occupiers can also be saved costs in their own furnishing; there seems no doubt that timber restrictions make housing more costly.

The fact that plywood and hardwoods are not controlled is only of small assistance to the architect in most of his buildings, as the cost is generally too high in comparison with softwood. I gather there is no real world scarcity of softwood, and if control of its use were to be relaxed we could have all that is reasonably necessary to produce economic building, and it might make some countries more willing buyers of British goods. It is merely a matter of official policy that prevents a more generous supply. If there could be relaxations I would not suggest that we should necessarily start using softwood extravagantly, such as building all-timber houses and similar heavy uses of the material; thus it might be wise, in order to prevent extravagance, to make a start by increasing the softwood allowances per house sufficiently to permit timber ground floors, timber fitments and better finishings or at least to allow English builders as much timber as is permitted to those who build in Scotland.

If prefabrication is a desirable development I think there is very little doubt that timber is the building material which best lends itself to this type of construction as any minor adjustments necessary during assembly can be made so much more easily. I am in no way afraid of prefabrication if it can be handled in such a way that monotony in finished buildings can be avoided. There are also future possibilities for the prefabrication of large components, such as floors and fitments when either spans or a standard building module have been agreed.

Furthermore, there needs to be an increased development of the possible increased uses of the fabricated timber such as plywood and blockboard, and of laminated constructions. The last has, I am sure, vast possibilities, but as yet I do not think there are many manufacturers equipped and willing to take on this type of production which also involves advising users, and even making the calculations for them.

DUTCH UNCLE

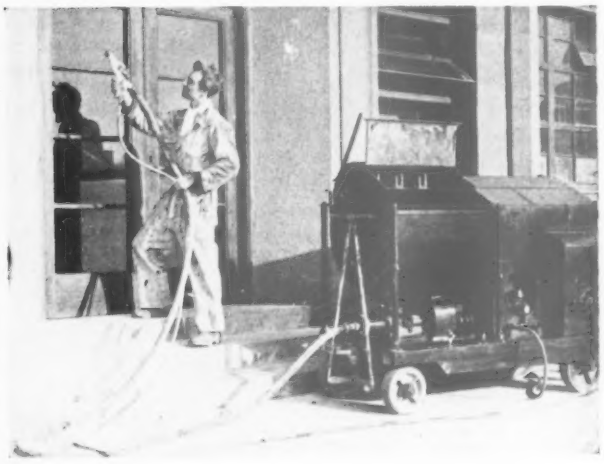
New R.San.I. Specialist Qualification

The Royal Sanitary Institute has instituted a new Examination in the Inspection of Water and Drainage Installations. This examination will satisfy a demand for inspectors with specialized knowledge and experience, able to maintain a higher standard of inspection and approval of all types of water and drainage installations than those with more general qualifications and duties are normally in a position to effect.

The syllabus includes water and water supply, drainage, disposal of sewage and removal of refuse, sanitary appliances and waste plumbing, law and administration, reports, tests and co-operation. Intending candidates, who wish to ascertain whether they are eligible to sit for the examination, should obtain the regulations and syllabus from the Secretary, Royal Sanitary Institute, 90, Buckingham Palace Road, London, S.W.1.

Notes on Mechanical Plastering

by J. P. BUTCHER, A.M.Inst.B.E.



MANY times during the past century the Master Plasterer has discussed with fellow members the possibility of mechanizing the craft and finding a technique able to supersede the laborious work involved in using the Hawk and Trowel and a means of mechanically conveying the materials from the mixing bank to the spot board or craftsman without prejudice to the art of the trade. For a long while the method of applying plaster mixes has remained essentially unchanged, whereas the introduction of mechanization into the various trades of the Building Industry has developed rapidly during the past 25 to 50 years.

Earth-moving and trench-digging machines have replaced the navvy with his shovel; moving and placing of concrete is now a job for the machine. The processing of clay into bricks, tiles and the like have replaced manual production. Steam and electrically operated machines have supplemented the joiner. Portable saws have replaced the laborious work of the carpenter. Reinforced concrete has replaced brickwork in the clothing of many buildings, hoists and cranes now place building materials with the hands of the craftsman.

These are but a few of the instances of mechanized or prefabricated products that have invaded the world of building, and if we continue this process of thought into the heavy and laborious manual processes of the plastering trade, there mechanization of method should provide for placing materials and allowing the craftsman further to implement the skill of his trade.

The painter and decorator has added considerable skill to his craft by the introduction of compressed air and the spray gun. In this industry many of the latest developments in paint production can only be carried out satisfactorily by spraying.

The mechanical aids of the spray gun and extruder are now being introduced into the field of plastering. Seven years of intensive research have gone into the use of suitable materials and the design of mechanical mixers, spray guns and extruders to mechanize the application of cementitious or plaster-based compositions. The seemingly impossible change from tradition that the old master plasterers could not visualize has become reality. Modern aids afforded to the craftsman only relieve him of unnecessary hard labour in placing the material, and in no way detract from the art and skill of the craftsman in producing the desired and satisfactory surface finish.

The object of plastering internal surfaces using sand as an aggregate with cements, limes, or various manufactured gypsum plasters as binders was broadly to provide a surface finish to receive decorative mediums. Such treatments had a very limited scope, and for many years it has been agreed that such applications could have a result that provided for something considerably in advance of such a limited object. The resistance of these renderings to heat transmission show thermal resistivity figures ranging between 0.25-0.33, depending on the ratios of the aggregates, and does not offer a resistance which is generally required by to-day's economy in the supply of heat. Acoustically these hard, dense surfaces will absorb very little sound and, further, will tend to produce echoes by virtue of the hard, reflective surface which is finally presented.

Modern building practice, owing to new and quicker methods, makes certain demands on finishing materials such as have never before been experienced, and present-day economies demand that the heating generated for our comfort in domestic dwellings and the offices, works and factories in which we are confined for a considerable proportion of our lifetime should be conserved for our use and not absorbed into the ceilings and walls or dissipated in the outer atmosphere.

Renderings which offer good resistance to heat transmission, thus creating fuel economy and affording fire protection, are great factors in the balance of deciding the virtue of certain types of structures. Acoustical properties must also be included when contemplating noise control, and anti-condensation properties must be seriously considered because of the necessity for controlled temperature and humidities which are required in buildings of all types.

With new materials and methods at our disposal these demands can now be met.

The sand used as the common aggregate in plaster work weighs 80-110 lb or more per cu ft. Replace this with an aggregate weighing only 5-7 lb per cu ft, and it requires little imagination to conceive the enormous advantages that can accrue from such an introduction. Such an aggregate now being processed in increasing quantities in this country is exfoliated vermiculite. Produced by heat treatment, a completely inert natural ore is readily expanded into a concertina-like cellular structure which, when combined with cement, lime or plasters, weighs only 45 lb per cu ft and can be further reduced in weight by aeration of the matrix to 22 lb per cu ft.

The substitution of this exfoliated vermiculite for sand as an aggregate provides renderings which have a thermal resistivity ranging between 0.69-1.5 and have numerous added advantages.

Such cellular lightweight renderings expertly designed and placed will correct acoustical defects.

These renderings are easily pumped, sprayed or extruded and are easy to work. They offer excellent resistance to the passage of heat and create an economy in the use of fuel. They have also the considerable virtue of being highly resistant to corrosion in ferrous and non-ferrous metals. These cellular insulating properties provide a perfect anti-condensation medium important in the control of temperature and humidity in domestic and industrial buildings. They are also highly resistant to acid and chemical fumes, a most important factor where such attacks lead to rapid disintegration of the modern steel-framed building.

These applications afford a method of providing external protection and insulation to reinforced concrete buildings in the control of differential expansion between steel and concrete. Such a control prevents surface cracking leading to moisture penetrating and rusting of the steel reinforcement and spalling of the surface.

These new surfacing materials can be properly amalgamated in specially designed mechanical mixers which provide continuous pumping through feed lines to a distance of 200ft with a 90ft

A Window in Naples

BY EDWARD BAWDEN A.R.A.

As in Naples, so in all climates Crittall Export Windows are specially adapted with louvres, flyscreens, shutters, and everything else required by the particular conditions encountered anywhere in the world.

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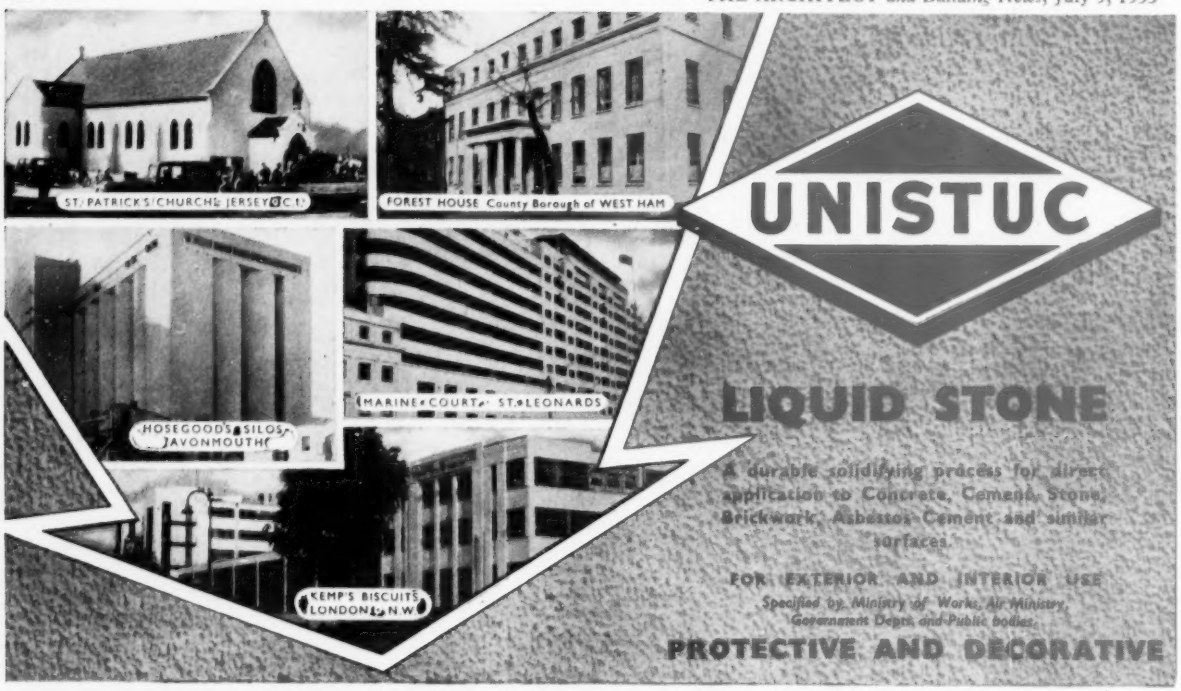
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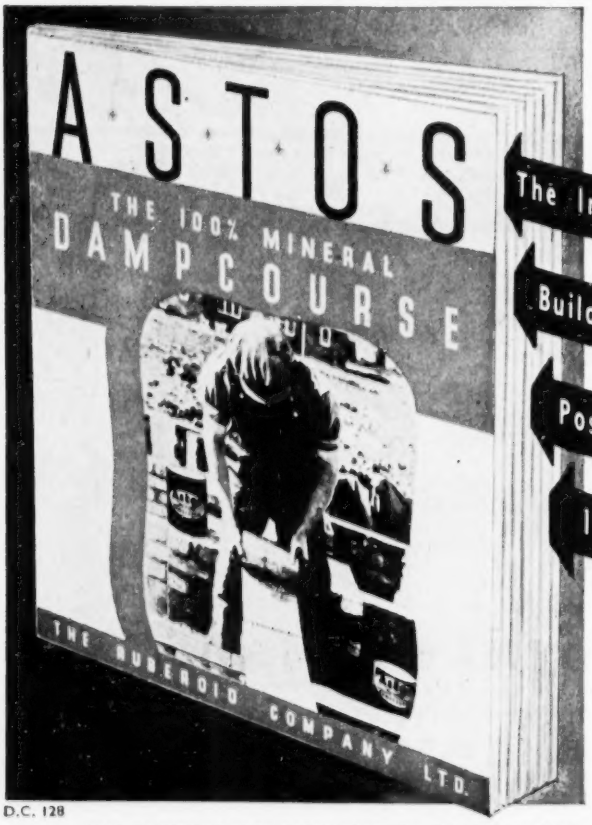

D.C. 128

INFORMATION

of interest to all concerned with modern methods of building construction

All the facts you need to guide you in the choice—and use—of the correct dampcourse for any building or site condition are contained in this handy reference book.

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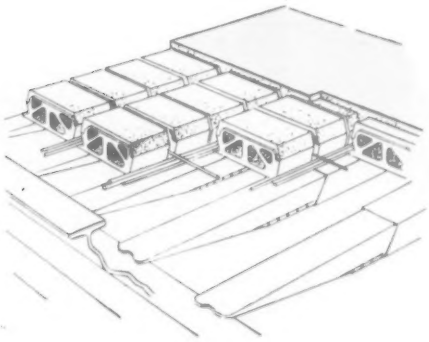
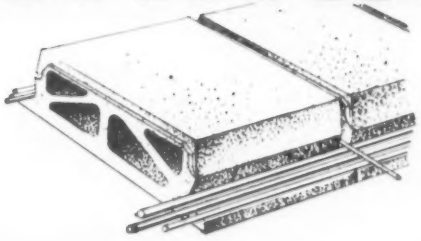


Showing Two-way Reinforcement and Hollow Concrete Blocks laid on Trianco Telescopic Centers.

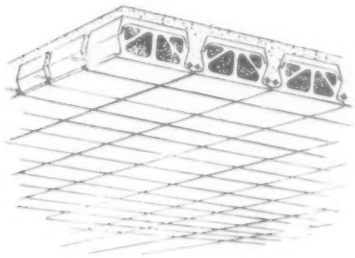
SEE

SMITH'S



2 WAY REINFORCED FIREPROOF FLOORS

The Two-way Reinforced Floor for distribution of point loads with efficiency and economy employing the original system of steel Telescopic Centers.



Showing uniform concrete soffit. Obtained without use of slip tiles.

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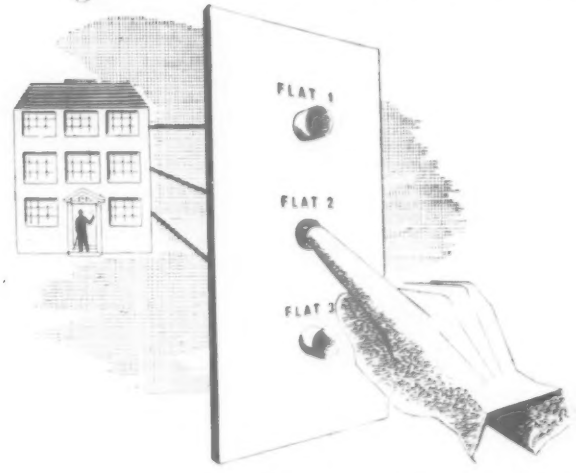
for CONVERSION SCHEMES



Rawlings Bros.' experience, particularly with the older types of houses, can be of immense assistance when conversion schemes are being planned. For many years, Rawlings Bros. have specialised in domestic building work, and today have the building equipment, materials, specialised craftsmen and a comprehensive stock of fittings, etc., to complete any conversion scheme.

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INSULATION

pure and simple?

How often do you find thermal insulation called for, without other requirements entering in as well? Not very often; and one great virtue of "Asbestolux" is that it meets so many of these additional requirements, so completely. It is incombustible, for example, and never deteriorates. It is highly resistant to acids, steam, humidity, rot, fungi, and insects. It is light and exceptionally easy to work; it can be nailed without cracking; it stands up well to handling; and it will not swell or twist. One reason for this remarkable combination of properties in "Asbestolux" is the type of asbestos used — the uniquely long-fibred Amosite, from the Cape Asbestos Co. Ltd's own mines – which gives an open cellular structure otherwise unobtainable. Another reason is the special high-pressure steam-curing process to which it is subjected. "Asbestolux" in short is something you could probably make more use of. May we send you details?

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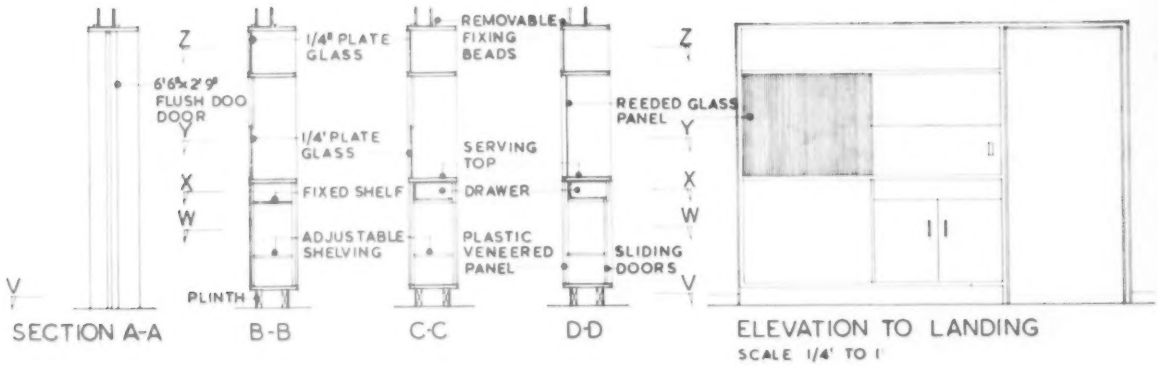
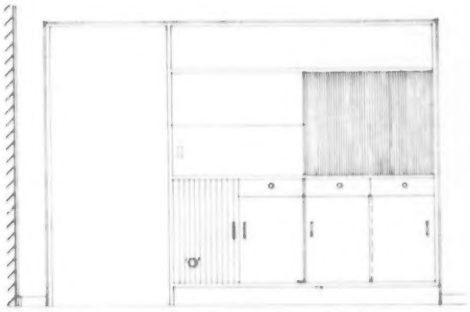
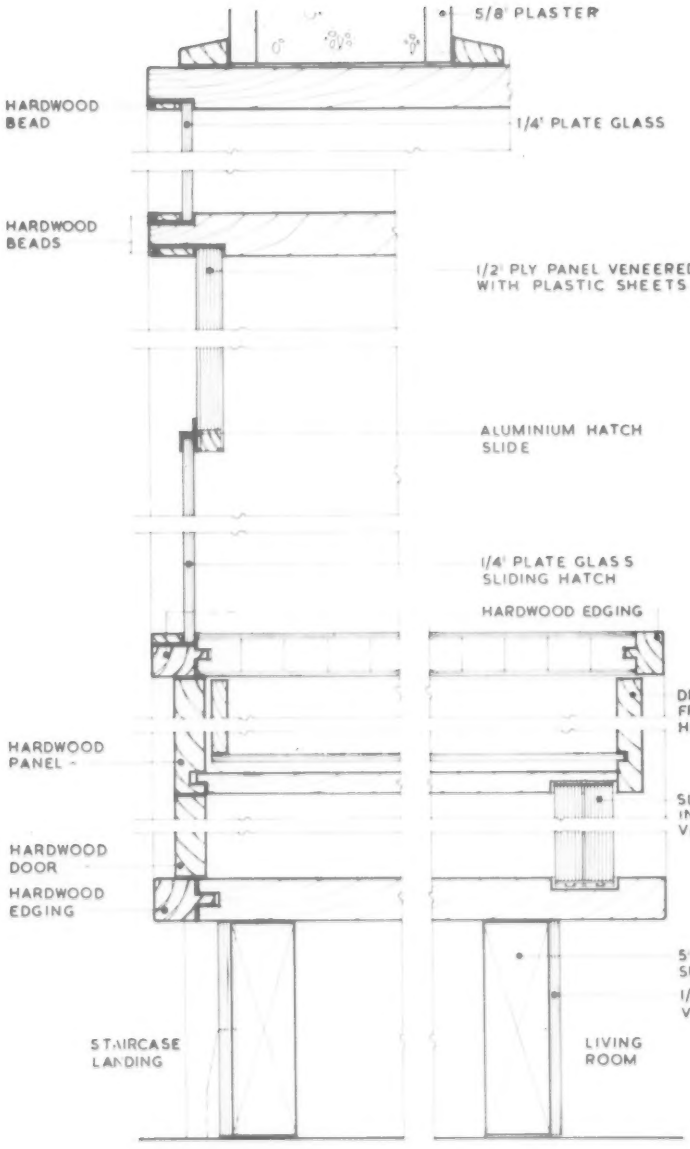
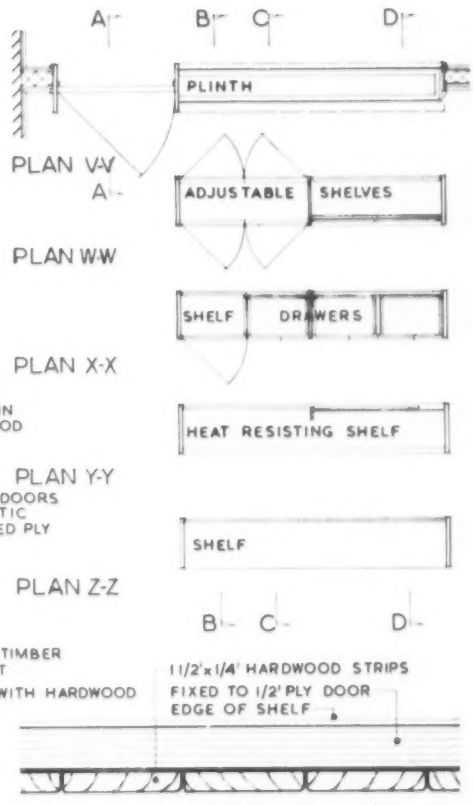

Z
6'6"x2'9" FLUSH DOO DOOR
Y
X
W
V
1/4" PLATE GLASS
1/4" PLATE GLASS
FIXED SHELF
ADJUSTABLE SHELVING
PLINTH
REMOVABLE FIXING BEADS
SERVING TOP
DRAWER
PLASTIC VENEERED PANEL
REEDED GLASS PANEL
SLIDING DOORS
SECTION A-A
B-B
C-C
D-D
ELEVATION TO LANDING
SCALE 1/4" TO 1'


ELEVATION TO LIVING ROOM


5/8" PLASTER
HARDWOOD BEAD
1/4" PLATE GLASS
HARDWOOD BEADS
1/2" PLY PANEL VENEERED WITH PLASTIC SHEETS
ALUMINIUM HATCH SLIDE
1/4" PLATE GLASS SLIDING HATCH
HARDWOOD EDGING
DRAWER FRONT IN HARDWOOD
HARDWOOD PANEL
SLIDING DOORS IN PLASTIC VENEERED PLY
HARDWOOD DOOR
HARDWOOD EDGING
5"x1 1/2" TIMBER SUPPORT
1/4" PLY WITH HARDWOOD VENEER
STAIRCASE LANDING
LIVING ROOM
1/4 F.S. SECTION


A
B
C
D
PLINTH
PLAN V-V
A
ADJUSTABLE
SHELVES
PLAN W-W
SHELF
DRAWERS
PLAN X-X
HEAT RESISTING SHELF
PLAN Y-Y
SHELF
PLAN Z-Z
B
C
D
1 1/2"x1/4" HARDWOOD STRIPS FIXED TO 1/2" PLY DOOR EDGE OF SHELF
1/2 F.S. DETAIL OF DOOR FINISH 'O'

CUPBOARD FITTING: HOUSE AT TUNBRIDGE WELLS

ARCHITECT: BRIAN PEAKE

vertical lift to the plasterer's working position. The achievement of lifting the composition from mixer to plasterer allows the operation of placing the rendering either by means of a patented spray gun or a mechanically fed plastering trowel. The application of this material, contrasted against the movements required by Spot Board methods, readily shows a considerable saving effected in both effort and time.

It is recognized that the method used by the plasterer when material is "dinged" or thrown on to a solid background adheres with much greater tenacity than when laid or spread with a trowel.

This principle has been incorporated in the mechanism of the spraying technique where the material from the feed line is broken up by the gun into small pea-like pieces which are projected on to the background with sufficient force to expel the air at the interface and remain there with good physical contact. Surfaces left textured from the spray gun resemble a roughcast which can be applied in either a fine, medium or heavy texture, and can be built up to any desired thickness according to the requirements.

These applications are being carried out both as an internal and external rendering. The external rendering is a weather-resisting "Soft Rendering," a rendering which offers good resistance to thermal transmittance and a good wearing surface. The application built up to form a cellular structure takes moisture into its interstices to a limited depth during rainfalls at the cessation of which the moisture readily evaporates into the atmosphere. The adhesion of this type of cementitious rendering is not affected by extreme temperature changes.

Mechanically rigged open-mesh backgrounds can prove wasteful of material when this is applied by the spray gun unless the back is closed by one of the forms of kraft paper. This paper has the advantage of retarding the passage of the sprayed material, impinging upon the paper and finally enclosing the whole of the mesh as a prevention against corrosion.

As an alternative this initial pricking-up can be placed over the lathing by means of a mechanically fed trowel. This new device is a normal plastering trowel having fixed to it a patented connector which joins on to a material feed line. Material is fed to this connector and then through a hole in the blade of the trowel. The trowel being constantly charged is worked by the plasterer in the usual manner, as in fact he would normally lay his material across the lath.

In the case of rough or mechanically keyed backgrounds, these light renderings can be applied direct with the mechanically fed trowel to the desired thickness, from a nominal $\frac{3}{8}$in upwards. In the case, however, of smooth backgrounds where normal plastering mixes will not adhere such as smooth-faced metal-shuttered concrete poured *in situ*, glazed tiles, etc., a mechanical key is needed, and, therefore, instead of breaking or sparrow pecking these surfaces, a mechanical key may be spattered on to the background with the spray gun. Once this keying coat has set, the rendering application may be built up with either the gun or trowel, depending on which is the most convenient to use.

For smooth finishes, once the desired thickness of material has been applied between prefixed screeds, the surface is lightly ruled over with wooden feather edges and left with a rough face from the wood to receive the finishing coat.

The backgrounds now having been brought to a level or plumb face are now ready to receive the finishing coat, which can be pigmented to almost any colour, thus creating a saving in after decoration. If texture is desired then further applications are placed from the spray gun. In the case of a smooth finish the plain or pigmented mix is sprayed to a thickness of approximately $\frac{1}{8}$in, the surface is then very lightly trowelled to a smooth finish. Once again a special technique is used to remove any glut or fat from the surface so that, on drying, the whole area will be uniform in colour and the floatation of colour reduced to a minimum.

The possibility of the types of plaster used during mixing, setting in the machine and feed lines, has been eliminated. By the use of special retarders, the mix can be controlled to set from 30 minutes to 6 hours. The machine operator and craftsman using the spray gun or trowel has full control of the plaster in very much the same way as "Shop Hands" control the set of plaster when casting small or large pieces in a Fibrous Plaster Workshop.

These notes should give rise to further constructive discussions between the Master Plasterers and members of the craft, as what was once a hopeful thought has now materialized.

A Continuous Process for Wallboard Production

The photograph below shows the Bartrev press, the development of which started several years ago, the first full-scale version now being in production in a factory at Marks Tey, where it can turn out wallboard at the rate of some 16,000 tons a year, or between 25 and 40 million square feet, according to thickness.

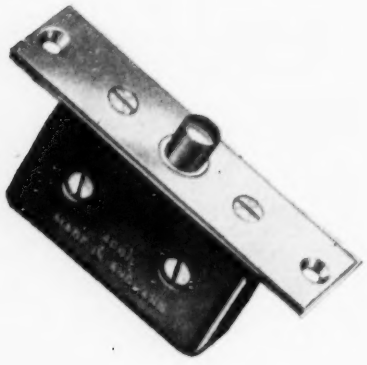
The normal building boards made from wood chips or shavings are cured in a multi daylight platen press in which the resin is cured under heat and pressure, but the process is comparatively slow, as the boards are poor conductors of heat and it takes a considerable time for the resin in the centre of the boards to become fully cured.

In the Bartrev press the chips, coated with resin, are shaken on to a belt through a vibrating tray so that they are of an even thickness, and are then radio-frequency heated to about 90 deg C., after which they are compressed to the finished thickness between two stainless-steel bands and are still further heated. The finished board emerges from the press at a speed of 14 feet a minute and is cut to the required length with a flying saw. Any length can be cut, the only limitation being the severely practical one of what can be conveniently handled on the site.

The board can be produced in any thickness from $\frac{3}{8}$ to $\frac{3}{4}$ inches and the cost varies from 4d to 9d per square foot. Paper-coated board can also be produced, the price being about $\frac{1}{2}$d per square foot higher. Standard width is 4ft.

The main interest of the Vere Engineering Co., Ltd., Vere St., W.1, is the production of these presses for sale, but until proper distribution has been organized any enquiries from would-be purchasers of the board should be addressed to them.

MOSAICS

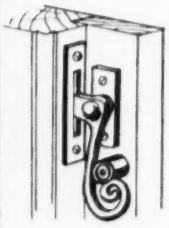


SERVICES

ELECTRICAL ACCESSORIES

B 5/23

A door-operated switch, made either "Push to Make" or "Push to break" and is only $\frac{7}{16}$in wide, 1$\frac{1}{4}$in long by 1in deep. The front plate is heavy brass, the body is in Bakelite with Phosphor Bronze contact springs. The illustration is actual size. Manufactured by Agro Electrical Co. Ltd., Buckingham Street, Aylesbury, Bucks

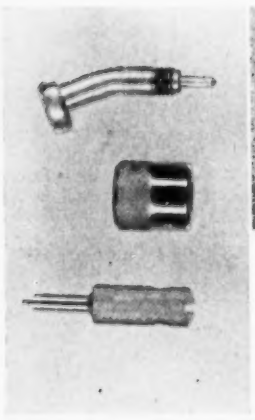


FITTINGS

WINDOW FURNITURE

C 10/1

The Rola "S" lock for wooden sash and casement windows. The head of the screw at the bottom of the illustration has been drilled and threaded to receive the "bolt" shown at the top. The long key has to be inserted into the head of the bolt to turn the threaded part which is quite separate from it; the bolt cannot be removed without the key. Made by Locks Ltd., 262, Brompton Road, London, S.W.3.



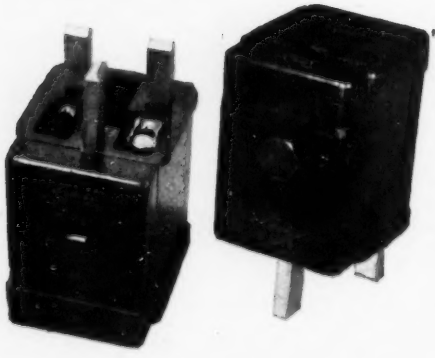
FITTINGS

WINDOW FURNITURE

C 10/2

The Rola "M" lock for Crittall-type Metal Windows requires no special fitting, it slips into position behind the cockspur handle and positively prevents it being operated. The cockspur must be of the standard pattern. Made of steel and key operated it is an advance towards the perfect locking of metal windows. Chromium or bronze finish.

The illustration shows the bolt at the top, the nut, concealed inside the tubular housing centre, and the key below. Made by Locks Ltd., 262, Brompton Road, London, S.W.3.



SERVICES

ELECTRICAL ACCESSORIES

B 5/24

A new 3-pin 2-way adaptor, completely shuttered, for 13 amp flat pin plugs has recently been brought out by Grelco Ltd., of Hopcott, Minehead, Somerset. The adaptor is of robust construction, has a strong positive action in the shutter mechanism and may be had either fused or unfused for 9s. 6d. and 8s. 6d. respectively. The fuse, replacements of which are 6d. each, is easily reached without any manipulation of screws or covers, and is housed in the base of the adaptor. The adaptor complies with B.S. 1363/1947, and is at present made of a brown moulding material and will eventually be available in white at a slightly higher price. Size 2$\frac{1}{8}$in. x 1$\frac{3}{4}$in. x 1$\frac{7}{16}$in, excluding pins.

INDUSTRIAL NOTES

● Sissons Brothers & Co., Ltd., paint manufacturers, announce the opening of their latest depot at Rosemary Lane, Norwich (Tel.: 24093). Comprehensive stocks are carried and a regular transport service will be operated from the depot, ensuring quick delivery of orders. Mr. L. W. Fugill, who has represented the company in the area for a considerable number of years, will be the manager.

* * *

● Troughton & Young, Ltd., electrical engineers and contractors, were responsible for the wiring of the 52 decorated poles and the three triumphal arches in the Mall Coronation illuminations.

The decorations, which extend from the Victoria Memorial to Admiralty Arch, a distance of 1,130 yards, were wired throughout with Enfield Cables.

* * *

● British Insulated Callender's Cables, Ltd., have been awarded the contract for the sea trials in the Cross-Channel Cable Project announced by the British Electricity Authority.

B.I.C.C. are working in the closest collaboration with W. T. Glover & Co., Ltd., whose design of 132 kV gas-filled cable has been chosen for this contract.

As already announced by B.E.A., the submarine cable-laying trials will be undertaken in the near future off the Dover coast, when two half-mile lengths of cable will be laid from the Post Office Cable-laying Ship *Alert*. After certain electrical tests have been carried out on the cables and joints, they will be recovered from the sea bed and returned to works for further testing. It is expected that the final tests will be completed by the end of this year.

* * *

● Mr. F. J. Thompson has been appointed commercial manager to The Express Lift Co., Ltd., to succeed the late Mr. A. E. Hunt. During 29 years' service with the company, Mr. Thompson has served in the export, sales, accounts and costing departments, as well as in the personnel, welfare, training and educational departments.

* * *

● The British Aluminium Co., Ltd., announces that, simultaneously with the reduction in the price of virgin aluminium ingot to £150 a ton, the following reductions are being made in the prices for rolled and extruded products: Pure aluminium and medium strength alloys in all rolled forms 1d a lb, all extruded products 1d a lb, heat-treatable strong alloys in all rolled forms ½d a lb, paste ½d a lb.

Virgin aluminium rolling slabs and wirebars are reduced by £9 a ton. Prices for virgin aluminium alloy ingots, hardeners, and granulated powder have also been reduced. Details are available on application.

The new prices apply to all despatches on and after July 1, 1953.

* * *

● Mr. Harold Macmillan, Minister of Housing and Local Government, has refused an application by the Bwlchgwyn Silica Co., Ltd., for planning permission to quarry silica stone which lies under the village of Bwlchgwyn, near Wrexham, Denbighshire. The application, which was the subject of a local enquiry in March, 1950, if granted, would have resulted in the eventual total destruction of the village.

CONTRACT • NEWS •

Notes below give basic data of contracts open under locality and authority which are in bold type. References indicate: (a) type of work, (b) address for application. Where no town is stated in the address it is the same as the locality given in the heading, (c) deposit, (d) last date for application, (e) last date and time for submission of tenders. Full details of contracts marked ★ are given in the advertisement section.

OPEN

BUILDING

BERKSHIRE C.C. (a) (1) 1 pair of houses at Southampton Street, Faringdon, and (2) 2 pairs of houses at Grove Road, Wantage, for police. (b) County Architect, Wilton House, Parkside Road, Reading. (c) 2gns each site. (e) July 23.

• • •

BIRKENHEAD B.C. (a) Contract No. 11. 217 houses, Woodchurch Estate. (b) Borough Architect, "Menlo," Wexford Road. (c) 2gns. (e) July 21.

• • •

***BRIGHTON B.C.** (a) 4 shops and flats, Woodingdean. (b) Borough Engineer, 26-30, Kings Road. (c) 2gns. (e) July 28. See page 28.

• • •

***BRIGHTON B.C.** (a) 11 houses, Essex Street, Brighton. (b) Borough Engineer, 26-30, Kings Road. (c) 2gns. (e) July 28. See page 28.

• • •

CEMAES R.C. (a) Public convenience at Cwmyreglwys, Dinas. (b) D. S. Smith, 26, Quay Street, Cardigan. (c) 2gns. (e) July 20.

• • •

CROYDON B.C. (a) Alterations and renovations to "The Lodge," Gibsons Hill, Upper Norwood. (b) Borough Engineer's Office, Town Hall. (c) 2gns. (e) July 24.

• • •

EAST RIDING C.C. (a) 3 pairs of police houses, Hessle. (b) County Architect, County Hall, Beverley. (c) £2. (e) July 27.

• • •

EAST RIDING C.C. (a) Midwife's house, Market Weighton. (b) County Architect, County Hall, Beverley. (c) £2. (e) Aug. 5.

• • •

GIPPING R.C. (a) 6 houses, Little Blakenham. (b) Engineer and Surveyor, Council Offices, Needham Market, near Ipswich. (c) £3. (e) July 17.

• • •

GUILDFORD B.C. (a) 8 pairs of houses, Bellfields; 12 pairs of houses, Bushy Hill. (b) Borough Engineer, Municipal Offices, High Street. (c) 2gns. (e) July 28.

• • •

HARTISMERE R.C. (a) 1 pair of bungalows and 2 pairs of houses with site works, Wyverstone. (b) H. Spindler, Housing Department, Lambseth Street, Eye. (c) 2gns. (e) July 17.

• • •

HORSHAM R.C. (a) 32 houses, Broadbridge Heath. (b) Messrs. Godman and Kay, "Milnwood," 13, North Parade. (c) 2gns. (e) July 20.

• • •

LONDON—WANDSWORTH B.C. (a) 3-storey block of shops and 20 flats at Rinaldo Street, Balham, S.W.12. (b) Town Clerk, Municipal Buildings, S.W.18, with details of experience, plant, technical and supervisory staff available, names of 2 technical and 2 financial referees. (d) July 15.

• • •

MALDON B.C. (a) 20 houses, St. Peter's Avenue. (b) Borough Engineer, Municipal Offices. (c) 2gns. (e) July 31.

• • •

NEWCASTLE REGIONAL HOSPITAL BOARD. (a) Adaptation of nurses' home to provide office accommodation at Walkergate Hospital. (b) Secretary, Newcastle Regional Hospital Board, "Dunira," Osborne Road, 2. (d) July 15.

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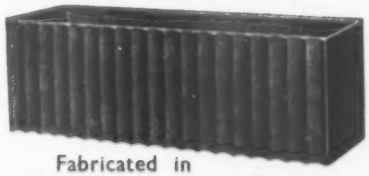

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N. IRELAND—ARMAGH U.C. (a) Changing rooms and caretaker's house at Recreation Grounds, Cathedral Road, Armagh, with services, etc. (b) Town Clerk, Armagh, Co. Armagh. (c) 5gns. (e) July 27.

• • •

N. IRELAND—BELFAST C.C. (a) Supply, delivery and erection of structural steelwork for extension to the Belfast Municipal Electric Power Station West. (b) Messrs. Merz and M'Lellan, Carliol House, Newcastle-upon-Tyne, 1. (c) 5gns. (e) Aug. 14.

• • •

N. IRELAND—BELFAST C.C. (a) Sub-station building at Ventry Lane, Belfast. (b) Electricity Department, East Bridge Street. (c) 2gns. (e) July 31.

• • •

N. IRELAND—BELFAST C.C. (a) Alterations and improvements at Ormeau Avenue Public Baths, Belfast. (b) City Surveyor's Department, Architectural Section (Room 85), City Hall. (e) Aug. 10.

• • •

N. IRELAND—LIMAVADY U.C. (a) 38 houses, etc., Connell Street. (b) W. Ivan Lynch, 2, Shipquay Street, Londonderry. (c) 5gns. (e) July 20.

• • •

NORFOLK E.C. (a) Two additional classrooms at Wymondham Secondary School and 3 classrooms at Martham Primary School. (b) Chief Education Officer, County Education Offices, Stracey Road, Norwich. (d) July 15, stating schools.

• • •

NOTTINGHAMSHIRE C.C. (a) Additional bedroom accommodation at The Woodlands, Basford. (b) County Architect, County Hall, Trent Bridge, Nottingham. (c) 1gn. cheque. (d) July 11.

• • •

PEMBROKESHIRE C.C. (a) Nurse's house and garage, Ellis Avenue, Haverfordwest. (b) County Architect, County Offices, Haverfordwest. (c) 2gns, cheque payable to Council. (e) July 18.

• • •

PLOUGHLEY R.C. (a) Demolition of cottages and erection of 6 pairs of houses, Bucknell, Oxon. (b) F. E. Openshaw, Oxford Allied Architects, 65, St. Gile's Street, Oxford. (c) £2. (e) July 23.

• • •

PLYMOUTH C.C. (a) 48 flats, Notte Street. (b) City Architect, Seymour Road. (c) 3gns payable to Corporation. (d) July 11.

• • •

PRESTWICH B.C. (a) Block of 10 shops and 16 maisonettes, Venwood Road, Carr Clough Estate. (b) Borough Engineer, Town Hall. (c) 10gns. (e) Aug. 5.

• • •

RAWTENSTALL B.C. (a) (Contract No. 11) 20 houses, (Contract No. 12) 73 houses, (Contract No. 13) 39 houses, Staghills Estate, Newchurch-in-Rossendale. (b) Borough Engineer, Town Hall, Rawtenstall, Rossendale. (d) July 11; stating contract or contracts.

• • •

SCOTLAND—BOARD OF MANAGEMENT FOR OBAN AND DISTRICT HOSPITALS. (a) Kitchen alterations in the administrative block of the County Sanatorium, Oban (separate trades). (b) Secretary, Board of Management for Oban and District Hospitals, "Aros," Lochgilphead, Argyll.

• • •

SCOTLAND — LOTHIAN AND PEEBLES JOINT POLICE COMMITTEE. (a) Alterations at the Police Station, Bo'ness, West Lothian. (b) County Architect, County Buildings, Linlithgow.

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SCOTLAND—EDINBURGH C.C. (a) Colinton Mains primary school (separate trades). (b) Messrs. Gordon and Dey, 36, Heriot Row, 3.

• • •

WELLINGBOROUGH U.C. (a) 112 houses, Croyland Hall Farm Estate. (b) Engineer and Surveyor, Council Offices. (c) 2gns. (e) July 20.

• • •

WEST RIDING STANDING JOINT COMMITTEE. (a) Adaptations at West Riding Court House, Doncaster. (b) County Architect, "Bishopgarth," Westfield Road, Wakefield. (e) July 17.

PLACED

Notes on contracts placed state locality and authority in bold type with (1) type of work, (2) site, (3) name of contractor and address, (4) amount of tender or estimate. † denotes that work may not start pending final acceptance, or obtaining of licence, or modification of tenders, etc.

HARTLEPOOL. (1) Reconstruction of berth for Docks and Inland Waterways Executive. (2) Old Harbour. (3) John Howard and Co., Ltd., 13, Buckingham Gate, London, S.W.1. (4) £300,000.

• • •

ISLINGTON B.C. (1) 60 flats. (2) Sable Street, etc. (3) Rowley Bros., Ltd., Tower Works, Dunloe Avenue, London, N.17. (4) £118,320.

• • •

STOKE NEWINGTON B.C. (1) 48 flats. (2) Green Lanes. (3) Stewart and Partners, Ltd., 105, Baker Street, London, W.1. (4) £88,463.

• • •

LONDON, W. (1) Erection of offices, showrooms, warehouse, etc. (2) New Burlington Street and Savile Row. (3) J. A. Tyler and Sons, Ltd., 25, Cheval Place, London, S.W.7. (4) £156,000 cost.

• • •

SHEFFIELD CORPORATION. (1) 269 houses, flats, maisonettes. (2) Greenhill-Bradway Estate. (3) Bailey and Martin, Ltd., 44, Bank Street, Sheffield. (4) £334,150.

• • •

PETERLEE DEVELOPMENT CORPORATION. (1) 113 houses. (2) Chapel Hill. (3) Geo. Wimpey and Co., Ltd., Orchard House, Newcastle-on-Tyne.

• • •

WHICKHAM U.D.C. (1) 244 houses. (2) Swalwell Bank. (3) William Leech, Ltd., 2, Clayton Street, Newcastle-on-Tyne.

• • •

NOTTINGHAM. (1) 46 married quarters for War Office. (2) Bestwood Lodge. (3) George Cooper (Builders), Ltd., St. Albans Road, Bulwell, Notts.

• • •

DONCASTER. (1) 90 houses for Keadby Housing Association. (3) Walter Firth, Ltd., Armthorpe, Doncaster.

• • •

BUSHEY, HERTS. (1) Office block for Eagle Star Insurance Co., Ltd. (3) W. Jackson, 8, Tonsley Hill, London, S.W.18.

• • •

SOUTHWARK. (1) Demolition and extensions for Chas. Letts and Co., Ltd. (2) Borough Road. (3) Dove Bros., Ltd., Cloudesley Place, London, N.1. (4) £27,000.

• • •

LONDON, E.C. (1) Reconstruction. (2) Queen Street, E.C.4. (3) Chamberlain Industries, Ltd., Staffa Road, London, E.10. (4) £25,000.

• • •

PINNER U.D.C. (1) 58 flats and houses. (2) Eastcote Road. (3) Lancasters Contractors (London), Ltd., 30, Ealing Road, Wembley.

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WARWICKSHIRE C.C. (1) Extensions to school. (2) Manor Park. (3) G. E. and W. Wincott, Ltd., Nuneaton, Warwickshire.

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BEDDINGTON AND WALLINGTON U.D.C. (1) 24 flats. (2) Beddington Corner. (3) Clarke, Barton and Co., Ltd., 37, Station Road, Belmont, Surrey. (4) £49,494.

* * *

BRISTOL. (1) Shops for Greater London Properties, Ltd. (2) Crow Lanes. (3) G. Moss (London), Ltd., Dorchester Road, Northolt Park, Middlesex. (4) £50,000.

* * *

SHARDLOW R.D.C. (1) 42 houses. (2) Alvaston. (3) Wm. Wood (Heanor), Ltd., Heanor, Notts. (4) £55,712.

* * *

TOTNES TOWN COUNCIL. (1) 22 houses. (2) Pathfields. (3) E. R. Lugg, Stoke Gabriel, Totnes. (4) £32,093.

* * *

RAMSGATE B.C. (1) 20 flats. (2) South-Eastern Road. (3) D. C. Heard and Co., Ltd., Ramsgate. (4) £36,703.

* * *

DUNSTABLE B.C. (1) Houses and flats. (2) Bewers Hill. (3) Lindum (Lincoln), Ltd., Kempston Road, Bedford. (4) £49,421.

* * *

NEWRY (Co. Down) B.C. (1) 36 dwellings. (2) Armagh Road. (3) P. Carvill and Sons, Ltd., Warrenpoint, Co. Down. (4) £48,293.

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JARROW. (1) Bus station. (2) Station Street. (3) Bewley and Scott, Ltd., Dunston-on-Tyne.

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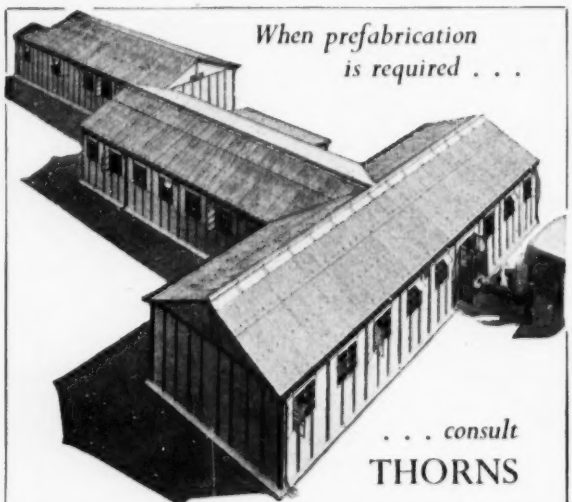

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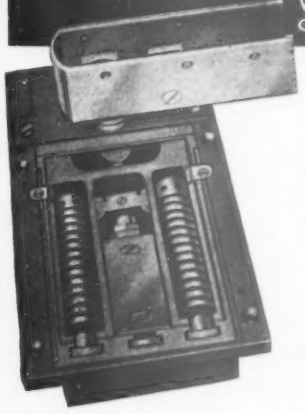

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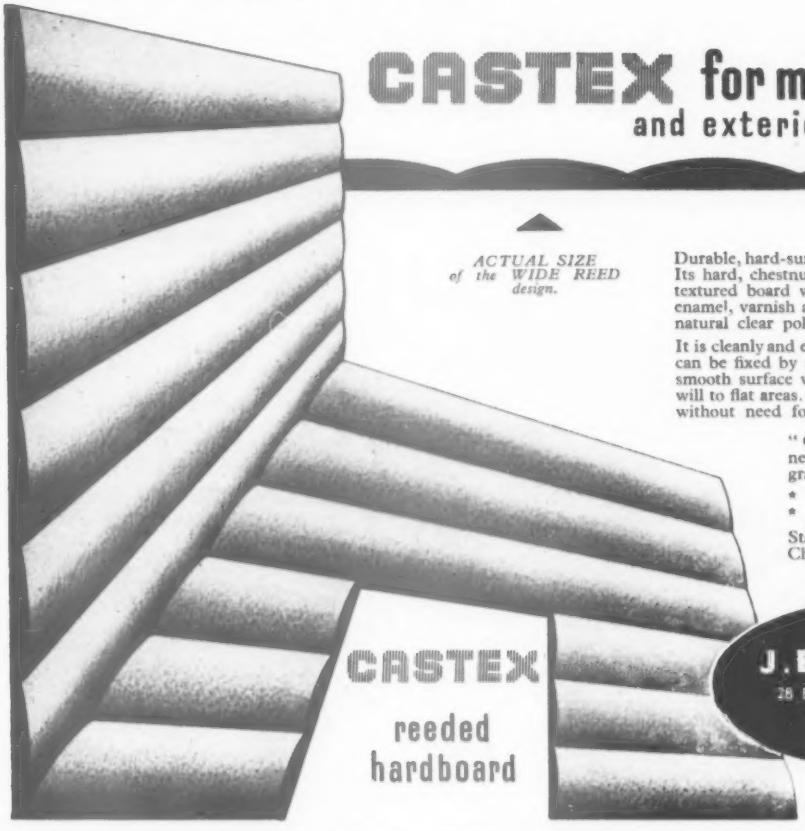

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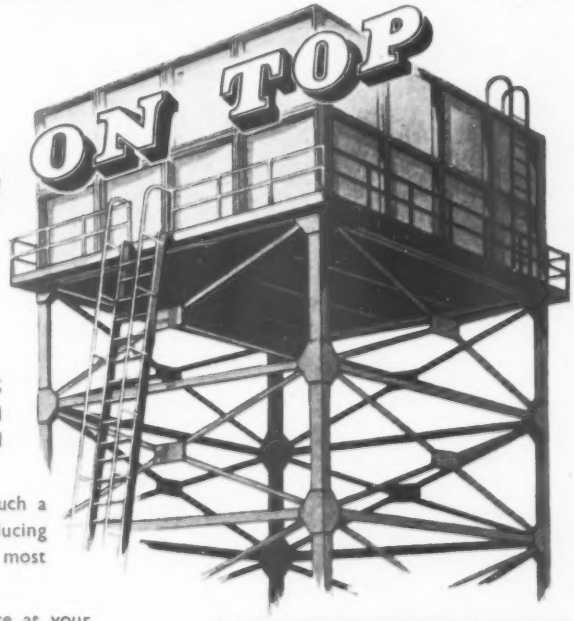

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Grimsby.
June, 1953. [7195

COUNTY BOROUGH OF EAST HAM.

SENIOR ARCHITECTURAL ASSISTANT. Salary £670-£735 (Grade A.P.T. VI).

ARCHITECTURAL ASSISTANT. Salary £595-£645 (Grade A.P.T. V).

ARCHITECTURAL ASSISTANT. Salary £555-£600 (Grade A.P.T. IV).

SENIOR ENGINEERING ASSISTANT. Salary £670-£735 (Grade A.P.T. VI).

ENGINEERING ASSISTANT. Salary £595-£645 (Grade A.P.T. V).

QUANTITY SURVEYOR. Salary £555-£600 (Grade A.P.T. IV).

CLERK OF WORKS (Road and Sewer Works) (Temporary). Salary £555-£600 (Grade A.P.T. IV).

London Weighting is paid in addition. Salaries in excess of the minima may be paid, according to the qualifications and experience of successful candidates.

Subsistence allowances may be paid to persons appointed, if unable to obtain suitable housing accommodation.

Further details and form of application (returnable by Monday, 20th July, 1953) obtainable from the TOWN CLERK, Town Hall, East Ham, E.6. [7200

APPOINTMENTS—contd.

PADDINGTON BOROUGH COUNCIL require ASSISTANT QUANTITY SURVEYOR (A.P.T. V—£625 to £675 p.a., £10 p.a. less if under age 26). Final R.I.C.S. (Quantities Section) or at equivalent stage of qualification. Following experience essential: taking off, working up, abstracting, billing; dealing with final accounts; negotiations with contractors; interim and final measurements for certification purposes; and ability to control junior assistants.

Applications (age, qualifications, past and present appointments, experience, names of three referees) to the Town Clerk (A.124), Paddington, W.2, by 20th July, 1953. [7201

BOROUGH OF CHINGFORD.

APPOINTMENT OF CLERK OF WORKS. Applications are invited from suitably qualified persons for the appointment to the temporary staff of the Borough Engineer of CLERK OF WORKS for various Housing Schemes, comprising houses, flats, shops, etc., at a salary of £11 per week.

Applications, on forms obtainable from the Borough Engineer, to be delivered endorsed "Clerk of Works" to the undersigned not later than 9 a.m., Monday, 27th July, 1953. Canvassing will disqualify.

FRANCIS J. O'DOWD,
Town Clerk.

Town Hall,
Chingford, E.4. [7203

URBAN DISTRICT COUNCIL OF CORBY.

ENGINEER & SURVEYOR'S DEPARTMENT.

APPLICATIONS are invited for the undermentioned appointment on the permanent staff of the Council's Engineer & Surveyor.

TRACER/DRAUGHTSMAN (MALE OR FEMALE).

Salary in accordance with Grade III of the Miscellaneous Division of the National Scale of Salaries, commencing at £375 per annum (£375-£440).

Applicants must be neat and expeditious draughtsmen, well experienced in the tracing of Architectural drawings and must be able, also, to undertake lettering thereon of a high standard.

Housing accommodation will be made available to the selected candidate (if married).

The provisions of the Local Government Superannuation Act, 1937, will apply.

Forms of application can be obtained from the undersigned to whom they should be returned completed by not later than Friday, the 24th July, 1953.

G. B. BLACKALL,
Clerk of the Council.

Council Offices,
Corby, Northants.
4th July, 1953. [7204

CONTRACTS

COUNTY BOROUGH OF BRIGHTON.

TENDERS are invited for the erection of

4 SHOPS AND FLATS AT WOODINGDEAN

Bills of Quantities and forms of tender may be obtained from the Borough Engineer & Surveyor, 26-30, Kings Road, Brighton on or after Saturday, 27th June, 1953, on receipt of a returnable deposit of £2 2s.

Tenders are to be delivered to the Town Clerk in plain sealed envelopes by 12 noon on Tuesday, 28th July, 1953.

J. G. DREW,
Town Clerk.
[7192

COUNTY BOROUGH OF BRIGHTON.

TENDERS are invited for the erection of

11 HOUSES IN ESSEX STREET, BRIGHTON

Bills of Quantities and forms of tender may be obtained from the Borough Engineer & Surveyor, 26-30, Kings Road, Brighton, on or after Monday, 6th July, on receipt of a returnable deposit of £2 2s.

Tenders are to be delivered to the Town Clerk in plain sealed envelopes by 12 noon on Tuesday, 28th July, 1953.

J. G. DREW,
Town Clerk.
[7193

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RATE: 1/6d. per line, minimum 3/-, average line 6 words. Each paragraph charged separately.

BOX NOS. add 2 words plus 1/- for registration and forwarding replies which should be addressed c/o. "The Architect & Building News," Dorset House, Stamford Street, London, S.E.1.

PRESS DAY Monday. Remittances payable to Iliffe & Sons Ltd., Dorset House, Stamford Street, London, S.E.1.

No responsibility accepted for errors.

ARCHITECTURAL APPOINTMENTS VACANT

The engagement of persons answering these advertisements must be made through the local office of the Ministry of Labour and National Service, etc., if the applicant is a man aged 18-64 or a woman aged 18-59 inclusive, unless he or she or the employer is excepted from the provisions of The Notification of Vacancies Order 1952.

SURVEYOR, Hampstead, requires immediately junior architectural assistant; write stating age, experience, etc, salary by arrangement.—Box 8261. [7194

SITUATIONS VACANT

The engagement of persons answering these advertisements must be made through the local office of the Ministry of Labour and National Service, etc., if the applicant is a man aged 18-64 or a woman aged 18-59 inclusive, unless he or she or the employer is excepted from the provisions of The Notification of Vacancies Order 1952.

SANITARY and heating engineering assistant required for design work. Salary according to experience.—Apply in writing to T. P. Bennett & Son, 43, Bloomsbury Square, London, W.1. [7184

A SENIOR representative is required by leading manufacturers of prefabricated buildings; architectural background with practical or technical experience of prefabrication in building would be a considerable asset; sound commercial ability in initiating and negotiating at highest level in municipal and commercial undertakings for the successful development of new projects.—Box 8262. [7197

MATERIALS Taker-off required by the Kuwait Oil Company for service in Kuwait. In addition to formal training must have at least 4 years' experience in a building or contractor's office on the preparation of lists of materials required for building or civil engineering structures. Should be able to take off from drawings complete and accurate lists of all materials required. Additional experience in taking off lists of electrical materials and preparation of detailed orders an advantage. Age 30-40. Salary starting £790 p.a. clear, plus generous allowances. Pension Scheme and kit allowance. Write for application form giving personal details and quoting K.1733 to—Box A/13, c/o 191, Gresham House, E.C.2. [7188

SERVICES OFFERED

DETAIL and working drawings prepared from sketches, also tracing and colouring promptly executed; Eastleigh/Southampton district.—Box 8359. [7202

MUNICIPAL Hire Service. To remind you of the service we give to the public through their local authorities: Cesspool Emptiers, Gully Emptiers, Dust Freighters and Road Sweepers. With or without Drivers, at your service.—E. H. Lee, Ltd., New Rd., Woodston, Peterborough. [0132

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ALL Mouldings, Plain and Embossed, and Embossed ornaments. Numerous designs.—Dareve's Moulding Mills, Ltd., 60, Pownall Rd., Dalston, E.8. [0086

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THE EQUIPMENT conforms to the following specification:—

ADSORBER CYLINDERS:

Designed, constructed, inspected and tested in accordance with:—

(a) AS.M.E. Boiler Construction Code Section VIII (Unfired Pressure Vessels), or

(b) B.S.S. 487 for Fusion Welded Air Receivers.

Cylinders are mounted vertically and suitable for a design pressure of 125 p.s.i.g. having a corrosion allowance of ⅛in and constructed from steel to B.S.S.14 throughout.

ADSORBENT MATERIAL:

The adsorber cylinders are charged with high grade silica gel of suitable mesh size. Charge is a highly efficient moisture adsorbent capable of repeated adsorbtion and reactivation cycle without deterioration of moisture capacity or adsorbing efficiency. The charge is highly resistant to disintegration by abrasion or shock.

VALVES AND FITTINGS:

The adsorber cylinders are so interconnected that air flow may be permitted through any cylinder at will while the other cylinders are being reactivated.

All piping conforms to A.P.I. Spec. 5-L Grade "B" seamless steel oil line pipe. All pipe threads conform to A.P.I. Standards. All flanges conform to A.S.A. Standards and are of the solid forged hub type.

Each cylinder is fitted with a spring loaded safety pressure release valve, and dial pressure gauge.

BLOWER:

Continuous air circulation in the reactivation circuit is provided by an electric motor driven blower.

HEATING AND COOLING:

Heating and cooling processes are effected by means of a mild steel coil embedded in the silica gel.

(*Continued in next column*)

PLANT FOR SALE—contd.

VALVE OPERATION:

The valves are operated by electric motors, limit switches provided to stop the valves in each of the extreme positions. Valve operation as well as operation of the valves controlling steam and water supply are controlled by an automatic timing device, by the operation of which the duration of the adsorbing, heating and cooling cycles respectively are predetermined and these cycles repeated in sequence automatically and continuously without manual attention to the plant.

ELECTRICAL EQUIPMENT:

A hand operated main switch and protective fuses are provided for isolation and protection of the motor and control units. The motor is further controlled by a contactor type starter while appropriate subsidiary gear is provided for the control circuit equipment. The complete electrical equipment is assembled on a self-contained panel provided with pilot lights and mounted integrally with the main equipment.

All electrical equipment is Buxton certified for Group II gases, suitable for use on 440 volt, 3 phase, 50 cycle supply, 250 volts between one phase and neutral available for lighting. Rupturing capacity of 5 M.V.A. is required and English Electric H.R.C. fuses are acceptable for back-up protection.

Motors are of squirrel cage induction type suitable for direct-on starting to have a temperature rise not exceeding 40 deg C after a full load run of 6 hours duration with Class A Insulation Starting current must not exceed 6 times full load current.

Motor starters are of the air brake contactor type having inherent undervoltage protection, interlocked T.P. line isolator, 3 magnetic type overcurrent releases fitted with adjustable mechanical time lags.

ASSEMBLY:

The adsorber cylinders are mounted vertically on a structural framework arranged to stand on a level floor. All other equipment suitable supported on the same base. The complete assembly is entirely self-contained for lifting as a complete unit.

PAINTING:

The unit is finished throughout with heat-resisting aluminium paint.

(*Continued in next column*)

PLANT FOR SALE—contd.

SPARE FILLING:

The unit is complete with one original charge of silica gel and also one complete spare charge.

The absorptive capacity of silica gel is approximately three times as great when handling air at atmospheric pressure as is the case when handling air at 100 p.s.i. pressure and this efficiency decreased still further at higher pressures. It therefore follows that it will be possible for the drier to absorb more water before requiring regeneration when operating on air at atmospheric pressure than on working on compressed air.

The above instrument was originally intended for export to Persia, but owing to difficulties in that country is now rendered redundant. This is completely new and unused and packed in export cases.

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RECONDITIONED ex-Army huts and manufactured buildings, timber, asbestos, Nissen type, hall type, etc., all sizes and prices.—Write, call or telephone Universal Supplies (Belvedere), Ltd., Dept. 32, Crabtree Manorway, Belvedere, Kent. Tel. Erith 2948. [0120

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By SYD BISHOP & SONS,
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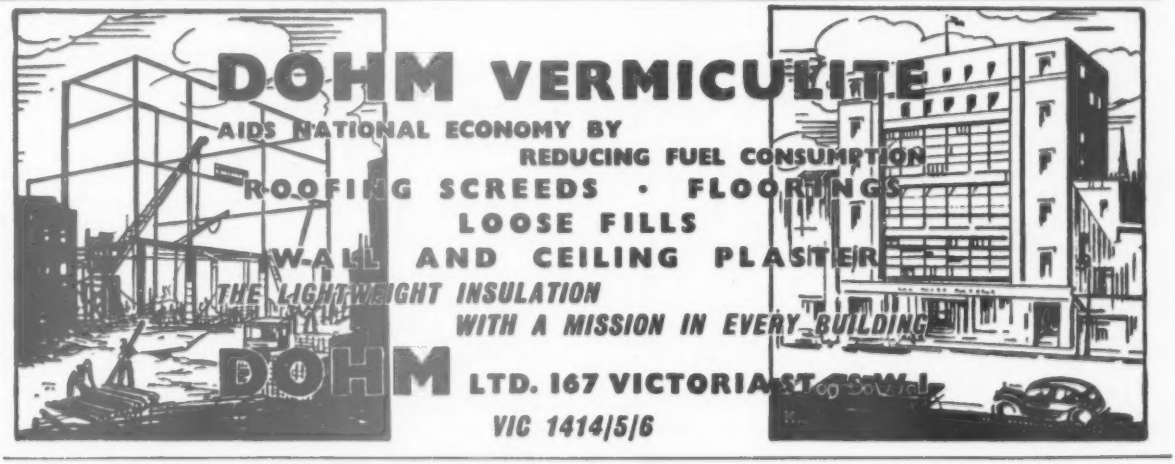
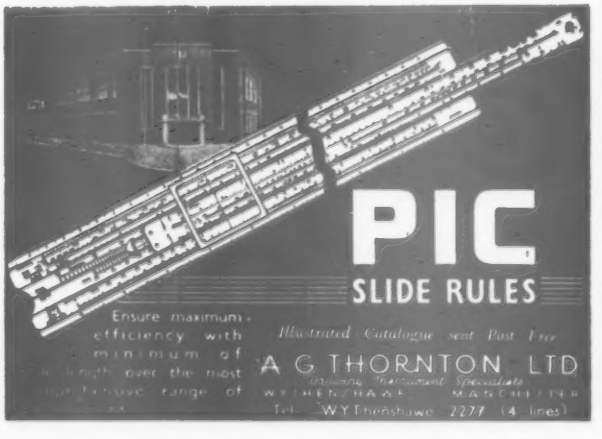
OLD MANSIONS BOUGHT FOR SALVAGE. [0124





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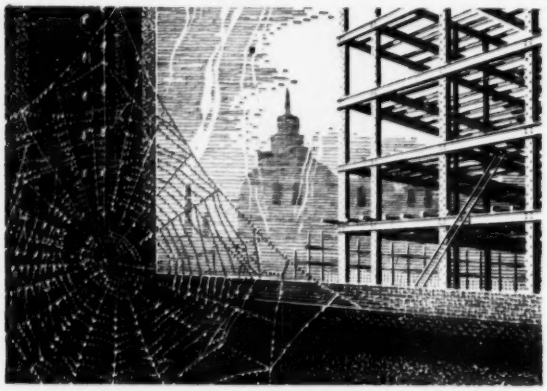

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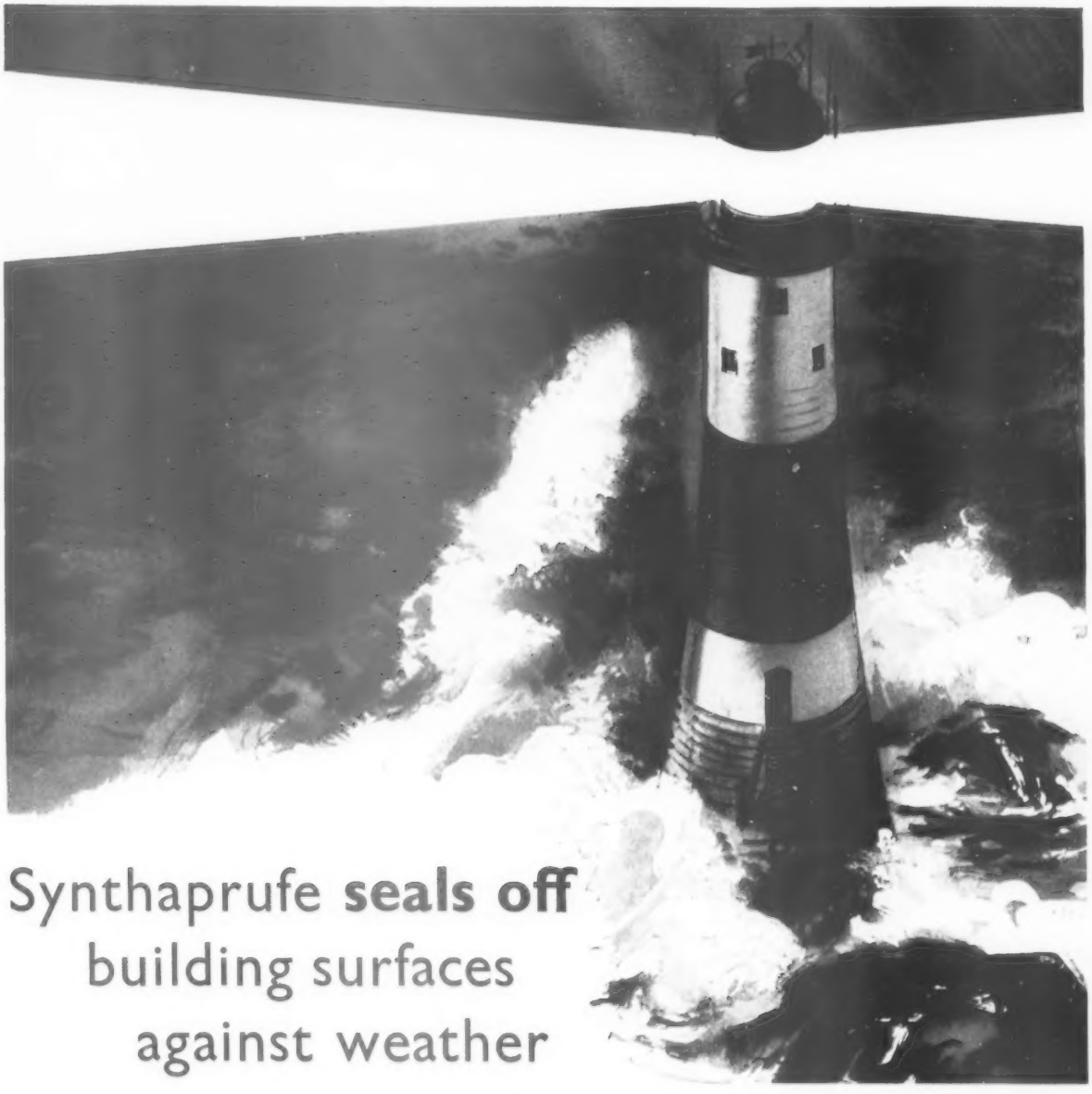

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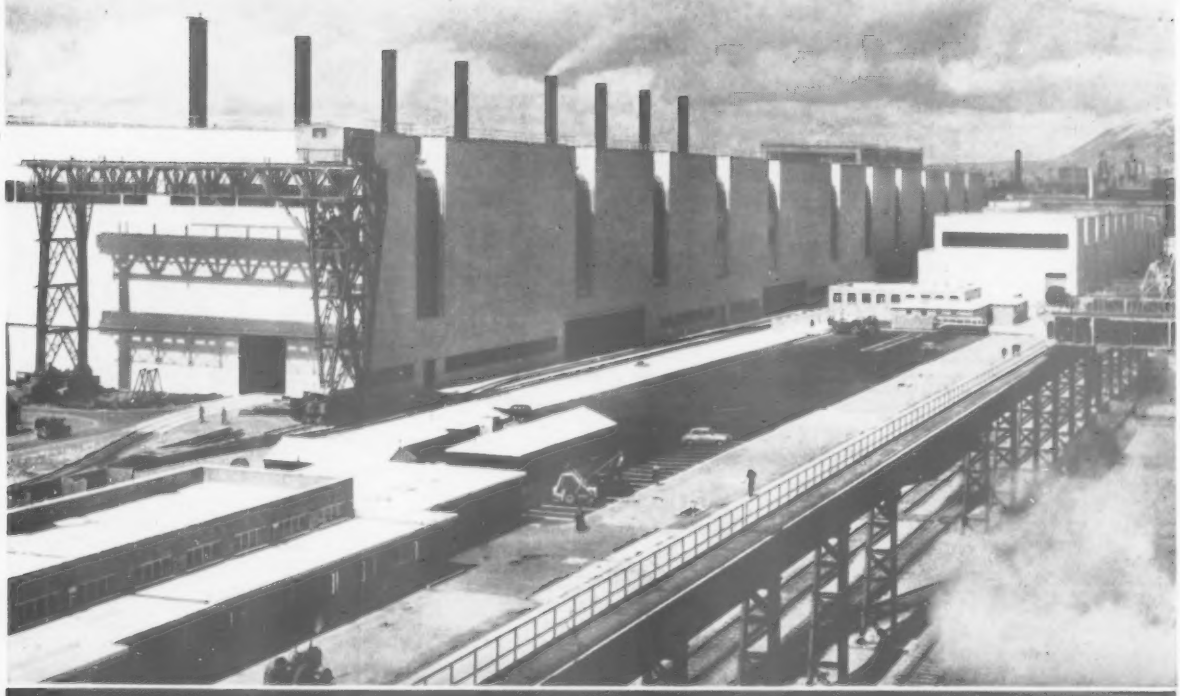

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